INLAND WETLANDS PROTECTION STUDY

SOUTHEASTERN CONNECTICUT PLANNING REGION

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SOUTHEASTERN CONNECTICUT REGIONAL PLANNING AGENCY
139 Boswell Avenue, Norwich, Connecticut 06360

FEBRUARY, 1988

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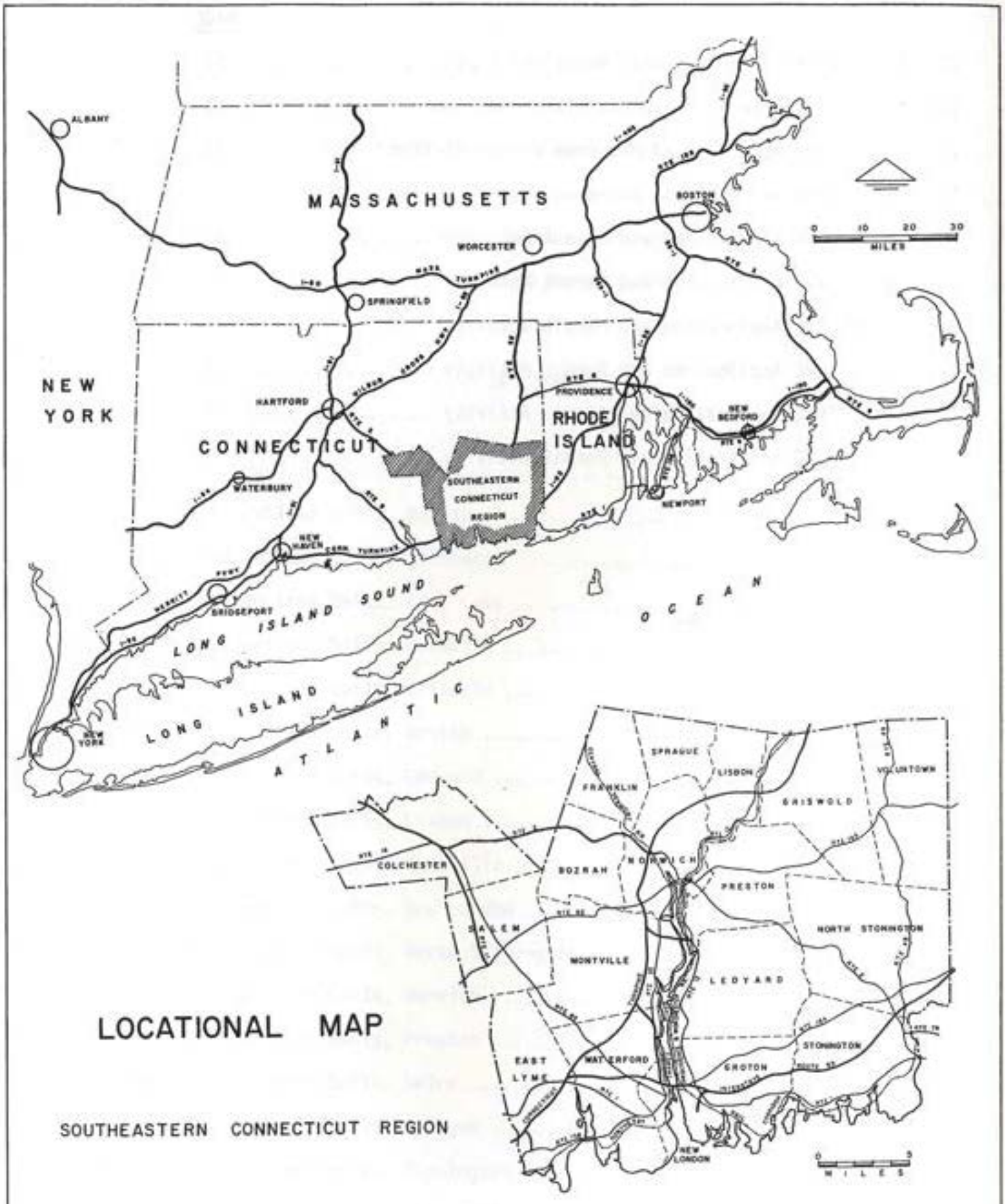


LOCATIONAL MAP

SOUTHEASTERN CONNECTICUT REGION

INTRODUCTION

The scope of this study included inventorying the distribution and importance of wetland areas, identifying any areas that may be at particular risk, attempting to determine the acreage of wetlands lost over the past few years, and reviewing local regulatory practices.

In 1972 the Connecticut General Assembly passed Public Act 155 for the "Preservation and Protection of Inland Wetlands and Watercourses." This Act permitted local municipalities to adopt the authority to administer this legislation if they wished. If a municipality chose not to do so, the regulation of the inland wetlands within its borders was performed by the Connecticut Department of Environmental Protection. The majority of Connecticut's municipalities began regulating their inland wetlands and watercourses at that time.

A part of this study draws upon the experience of municipalities in implementing Public Act 155. This covers staffing, inspection procedure, and application and permit experience. Wetland regulation responsibilities will be shared by all municipalities within the State after July 1, 1988, as a result of amended legislation in 1987 which requires each municipality to administer the authority of Public Act 155 (Chapter 440) by that date. Within the Southeastern Connecticut Planning Region, this requirement has affected two municipalities, the Towns of Preston and Voluntown, both of which must designate an authority to administer the legislation for the "Preservation and Protection of Inland Wetlands and Watercourses." A summary of the major aspects of this 1987 legislation can be found in the appendix.

As part of the regulatory process of administering Public Act 155, municipalities use mapped information showing regulated soils within their boundaries. The update of this soils information was conducted throughout the State by the USDA Soil Conservation Service during the 1970's and early 1980's. The soils update for New London County was completed in 1983. This information shows the spatial distribution of all soil types within the municipality.

Another part of this study depicts the spatial distribution of regulated soils for each municipality within the Planning Region. Calculations have been made to determine the acreage of regulated soil area and the percentage of land area this represents for each municipality. Additionally, regulated soil areas which are presently being used for groundwater supply and areas which have the potential for groundwater use are depicted. Special flood hazard areas are also shown. These are areas which may assist in groundwater recharge as well as aid in flood control.

Locations of municipal and state road-salt storage sites and municipal landfill sites are identified within each municipality.

Additionally, intensively zoned areas containing regulated soils with special concern are listed.

Table 1

STATUTORY DEFINITION OF WETLANDS AND WETLAND SOILS

"Wetlands" means land, including submerged land,...., which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and flood plain by the National Cooperative Soils Survey, as may be amended from time to time, of the Soil Conservation Service of the United States Department of Agriculture. [Connecticut General Statutes Section 22a-38 (15)].

"WETLAND SOILS REGULATED UNDER P.A. 155"
(New London County)

Aa	Adrian and Palms mucks
Ba	Beaches
Ce	Carlisle muck
Ip	Ipswich mucky peat
Ln	Limerick Variant silt loam
Pa	Pawcatuck mucky peat
Ps	Pootatuck Variant fine sandy loam
Rc	Raypol silt loam
Rn	Ridgebury, Leicester, and Whitman extremely stony fine sandy loam
Ro	Rippowam fine sandy loam
Sf	Scarboro mucky fine sandy loam
Wd	Walpole fine sandy laom
We	Westbrook mucky peat
Wh	Westbrook mucky peat, low salt

REGULATED SOILS, FUNCTIONS

There are many commonly recognized functional values of wetlands. They include flood control, wildlife and waterlife habitat, forestry, water recharge, and agriculture.

While it was beyond the scope of this inventory to evaluate all functional aspects of each and every wetland area, this inventory reviewed two functions. The groundwater use potential (water recharge) and possible flood control potential of regulated soil areas. This evaluation was conducted using available mapped data. It is intended to give a general sense of the attributes of the areas.

The significance of wetland areas to water use in general is widely accepted. The term "wetland" is defined as land or areas which contain much soil moisture. Many individual water supply wells are located in the vicinity of wetland areas tapping this soil moisture. This soil moisture is often evident as ponding water following heavy rains or snow melts. This water would be directed elsewhere if unable to be retained in these areas. This activity represents the flood control or floodplain aspects of these areas. In many of the wetland areas of Eastern Connecticut, these two functions, groundwater use and flood control, are functional partners.

Wetland areas are part of the larger hydrologic system. Their function is dependent upon various factors, such as location and size. Some of the general conditions which effect the two functions reviewed are as follows.

GROUNDWATER/FLOOD CONTROL

Bascially, water recharge areas act to percolate water into the ground while water discharge areas are areas where excessive groundwater is released. Both activities are related to the level of soil saturation.

In Eastern Connecticut, it is estimated that the majority of inland wetland areas function as groundwater discharge areas under normal conditions. These areas act as "overflow" or "safety valve" points for the groundwater. This discharge function is especially typical for upland wetlands. These same wetland areas can function otherwise as conditions change. One such condition is "flooding." (Holzer)

During periods of flooding, the groundwater flow in a wetland or floodplain may reduce the peak flood flow by storing this flood water temporarily as groundwater. This magnitude of reducing peak discharge flows varies over a wide range depending on the position of the wetland in the river system, the size of the wetland, and the vegetation and configuration of the wetland. (Posey) Regardless of magnitude, a normal function of regulated soils, particularly "alliuvial" soils, is to handle large volumes of waters in times of flooding. (Niering) The disturbance of these areas presently receiving flood waters may create displacement so that greater flooding is experienced downstream of the disturbance.

With regard to groundwater recharge, the effect of flooding is most pronounced when flood waters are in direct contact with permeable materials such as stratified drift (Holzer).

Stratified drift is classified into two main categories: fine-grained and coarse-grained deposits. The coarse-grained stratified drift deposits are composed mainly of medium sand to pebble and cobble gravel. This category of deposit has the potential to produce the larger amount of groundwater. The yield potential of these coarse-grained stratified drift deposits is approximately 1,900 gallons per day.

Generally, the recharge potential of a wetland is enhanced by two general conditions, the wetlands location above stratified drift and flooding conditions.

Also as a general principle, the flood control potential of regulated soils varies in magnitude but is basically a normal function with regard to acting as a storage basin in the hydrologic system.

These conditions have been overlayed on the regulated soils map of each municipality shown in a later section of this report. Coarse-grained stratified drift deposits, the more significant groundwater producer of the two categories of stratified drift, and special flood hazards areas are shown. The flood hazard zones depicted are those within the "100-year" flood boundary.

Another condition under which groundwater recharge may be induced in wetland areas is by heavy pumping from water wells adjacent to wetlands (Holzer). Accordingly, public water supply wells, along with water supply watersheds for surface water reservoirs, have been identified on the maps which follow.

All of these designations are intended to represent areas of special concern with regard to intensive land uses.

REGULATED SOILS, DATA

MAPPING

Regulated soils within each municipality have been mapped. This delineation depicts the overall spatial distribution of the soils within the municipality. Within this distribution, regulated soils which are located on coarse-grained stratified drift deposits are designated as such. Regulated soils that are located within a 100-year special flood hazard area are also designated. Both of these designations only include the area of regulated soil subject to those conditions. The coarse-grained stratified drift deposit or flood hazard area may exceed the mapped designation.

If there are major public water supply wells or surface water reservoir watersheds within a municipality, they are designated. This designation represents a present use.

Two other present uses are mapped. They are road-salt storage and landfill locations. Both of these activities are sources of potential ground and surface

water contaminants.

Road-salt storage sites contain large volumes of deicing salts. Proper storage methods are important in order to minimize ground/surface water contamination potential. The State of Connecticut Department of Environmental Protection regulates the storage and application of road-salts.

Also regulated by the same State agency are landfill sites. Operation methods are also important in minimizing the ground/surface water contamination potential of this use.

The inclusion of road-salt storage and landfill locations on the mapped data is not an indication that the areas surrounding these uses have ground or surface water contamination but that they are other areas of special concern.

OTHER

Other forms of development which are permitted by municipalities may have the potential to adversely impact regulated soil area depending upon their location. Typically these uses are intensive commercial or industrial activities that create a hazardous by-product, use hazardous materials in their production process or utilize underground storage of large quantities of fossil fuels.

Within each municipality, areas that are zoned to permit intensive commercial or industrial uses and which contain regulated soils designated as potential groundwater/flood control areas are listed, as part of the land use summary, adjacent to each map. This listing is intended to "flag" these areas as being of primary concern with regard to intensive land uses.

REGULATED SOILS, AREA

The soils data used for this study were the 1983 USDA Soil Conservation Service Soil Survey Maps. Accordingly, the acreage figures reflect these areas as mapped.

The area of regulated soils was tabulated, in acres, for each municipality. This information is also tabulated as a percentage of total municipal land area.

The acreage totals have been listed with the "1980 Land Use Totals" for regional municipalities. Comparisons can be made to the area occupied by various land uses and the area of all land uses which is comprised of regulated soils. Table 2 depicts this information.

Table 2

LAND USE TOTALS, 1980
(Acres)

	Total Developed	Total Open Space	Agriculture & Undeveloped	Total Town Acres	Regulated Soils *
URBAN TOWNS:					
Groton	8,076	3,490	7,378	18,944	2,639
New London	2,922	370	205	3,497	190
Norwich	6,748	1,569	9,682	17,999	1,592
URBAN TOTALS:	17,746	5,429	17,265	40,440	4,421
SUBURBAN TOWNS:					
Colchester	3,145	3,643	23,816	30,604	6,373
East Lyme	7,807	2,675	11,854	22,336	3,095
Griswold	2,288	3,865	16,247	22,400	3,037
Ledyard	3,803	3,207	18,078	25,088	3,477
Lisbon	1,517	117	9,054	10,688	1,433
Montville	4,418	2,099	21,131	27,648	3,186
Preston	2,354	676	16,750	19,780	4,056
Sprague	961	683	6,804	8,448	1,084
Stonington	3,962	1,747	19,443	25,152	5,277
Waterford	6,892	1,507	12,977	21,376	2,865
SUBURBAN TOTALS:	37,147	20,219	156,154	213,520	33,883
RURAL TOWNS:					
Bozrah	1,108	523	11,014	12,645	2,571
Franklin	798	715	11,030	12,543	2,130
North Stonington	1,859	4,693	28,712	35,264	4,879
Salem	1,430	2,088	14,720	18,238	2,899
Voluntown	923	14,305	9,988	25,216	4,595
RURAL TOTALS:	6,118	22,324	75,464	103,906	17,074
REGIONAL TOTALS:	61,011	47,972	248,883	357,866	55,378

SOURCE: SCRPA Land Use Survey
*SCRPA 1987 Measurement of data on 1983 USDA soil maps

FINDINGS

The results of the tabulation of the regulated soil data for the region show that these soil types comprise a major area of land in Southeastern Connecticut. Some 55,378 acres of regulated soils are present within the eighteen-town area. This land area represents 15.5% of the total land area of the region. Table 3 lists the acreage and percentage figures for each municipality. This information is also depicted adjacent to individual municipal maps along with acreage of various land uses within that municipality.

On a town by town basis, the acreage of regulated soils varies greatly. The 190 acres of regulated soils that exist in New London represent the smallest regional land area figure, while Colchester's 6,373 acres represent the largest land area.

Following Colchester, the top five regional towns for total regulated soil acres are: Stonington with 5,277 acres; North Stonington with 4,879 acres; Voluntown with 4,595 acres; and Preston with 4,056 acres.

As a percentage of total municipal land area, the 190 acres of New London represent the smallest regional percentage at 5.4%. Following New London is the City of Norwich, which has 8.8% of its land area consisting of regulated soils. This 8.8% translates into 1,592 acres.

The five regional towns with the largest percentage of land area classified as regulated soils are: Stonington, 20.9%; Colchester, 20.8%; Preston, 20.5%; Bozrah, 20.3%; and Voluntown, 18.2%.

The majority of towns have regulated soils acreage that comprises 12 to 14% of their total land areas.

Table 3

SOUTHEASTERN CONNECTICUT PLANNING REGION

REGULATED SOILS

Town	Total Town Acres	Total Regulated Soils (Acres)	Percent Regulated Soils
Bozrah	12,645	2,571	20.3
Colchester	30,604	6,373	20.8
East Lyme	22,336	3,095	13.8
Franklin	12,543	2,130	16.9
Griswold	22,400	3,037	13.5
Groton	18,944	2,639	13.9
Ledyard	25,088	3,477	13.8
Lisbon	10,688	1,433	13.4
Montville	27,648	3,186	11.5
New London	3,497	190	5.4
North Stonington	35,264	4,879	13.8
Norwich	17,999	1,592	8.8
Preston	19,780	4,056	20.5
Salem	18,238	2,899	15.8
Sprague	8,448	1,084	12.8
Stonington	25,152	5,277	20.9
Voluntown	25,216	4,595	18.2
Waterford	21,376	2,865	13.4
Regional Total	357,866	55,378	15.5

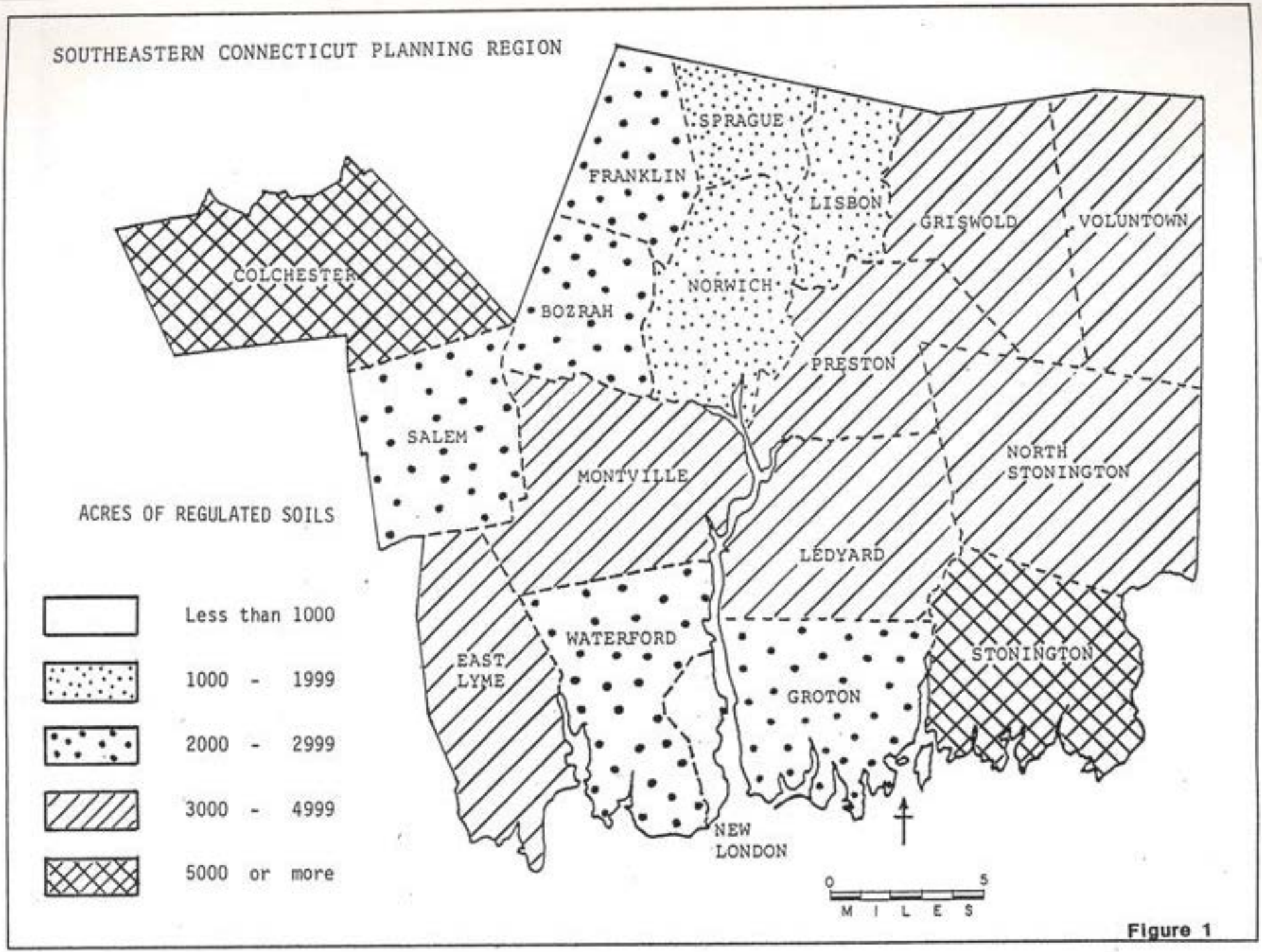
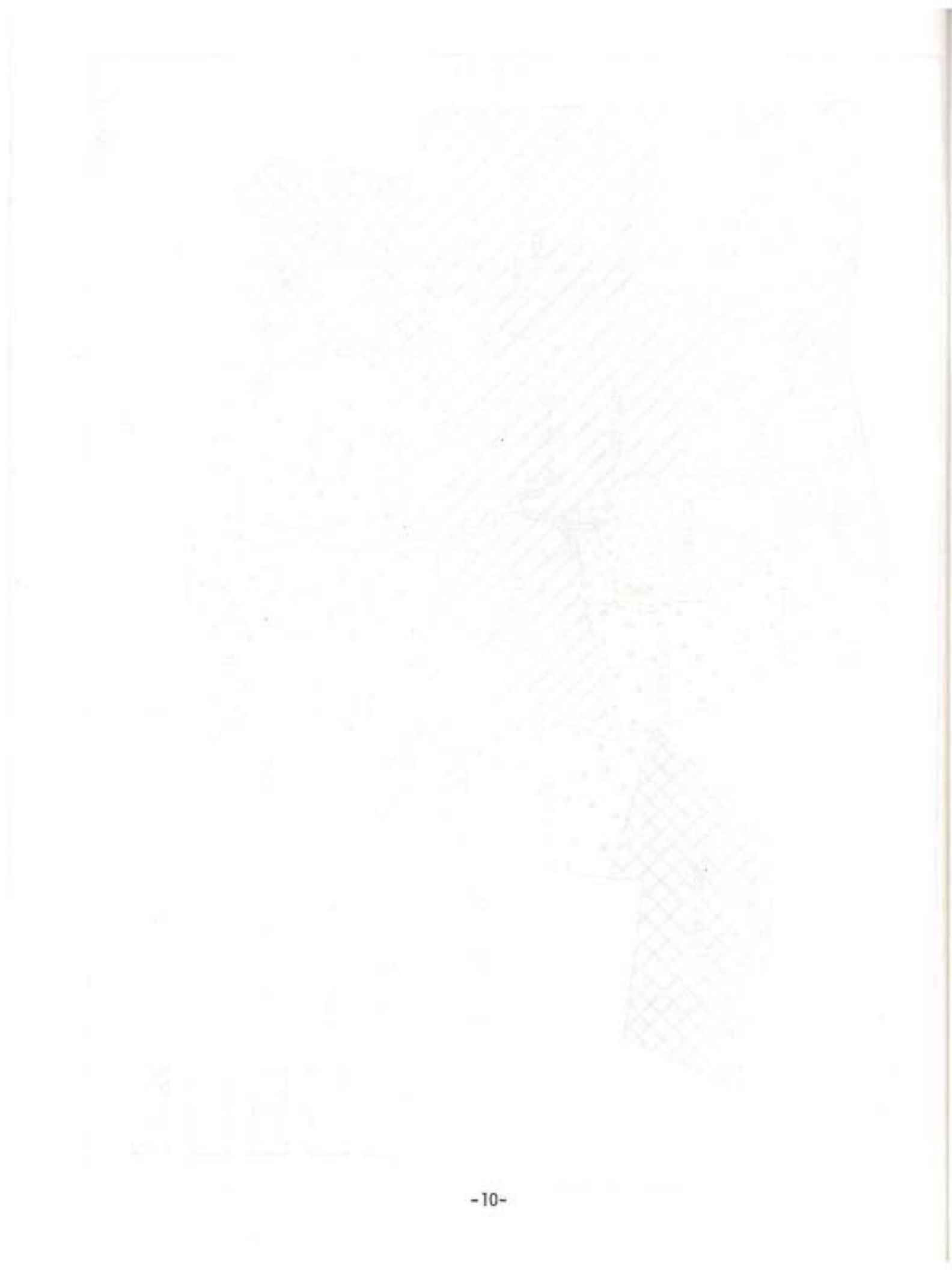

SOUTHEASTERN CONNECTICUT PLANNING REGION
SPRAGUE
FRANKLIN
LISBON
GRISWOLD
VOLUNTOWN
COLCHESTER
NORWICH
BOZRAH
PRESTON
SALEM
MONTVILLE
NORTH STONINGTON
LEDYARD
ACRES OF REGULATED SOILS
Less than 1000
1000 - 1999
2000 - 2999
3000 - 4999
5000 or more
WATERFORD
EAST LYME
STONINGTON
GROTON
NEW LONDON
0
5
M I L E S

Figure 1



MUNICIPAL REVIEW

TOWN BOZRAH

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
12,645	2,571	20.3

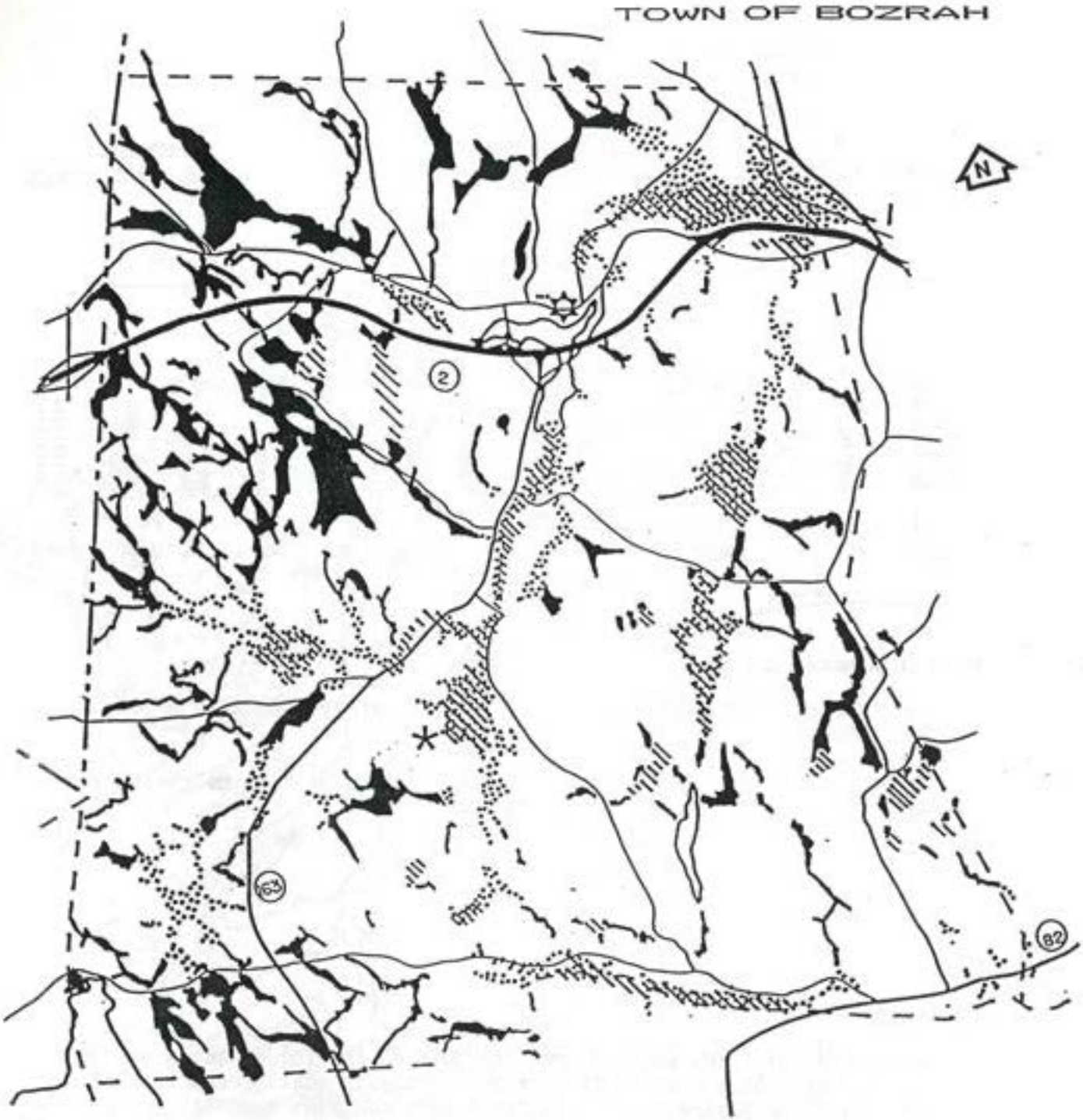
1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
81	434	28	5	463	73	8	16	1,108	67	0	456	523	11,014

PUBLIC WATER SUPPLY: N/A

COMMENTS:

Commercial and Industrial Districts in Fitchville area and Route 163 (north) have large wetland areas of special concern. These areas are within a "Aquifer Protection" overlay District which prohibits uses which could pose a threat to the quality of groundwater in identified aquifers (stratified drift).



REGULATED WETLAND SOILS

LEGEND

WETLAND SOILS

WETLANDS ON STRATIFIED DRIFT

WETLANDS IN SPECIAL FLOOD HAZARD AREA

TOWN ROAD SALT STORAGE

TOWN LANDFILL

0 1 2

SCALE IN MILES

Figure 2

TOWN COLCHESTER

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
30,604	6,373	20.8

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
591	949	72	16	1,015	319	52	131	3,145	2,098	1,319	226	3,643	23,816

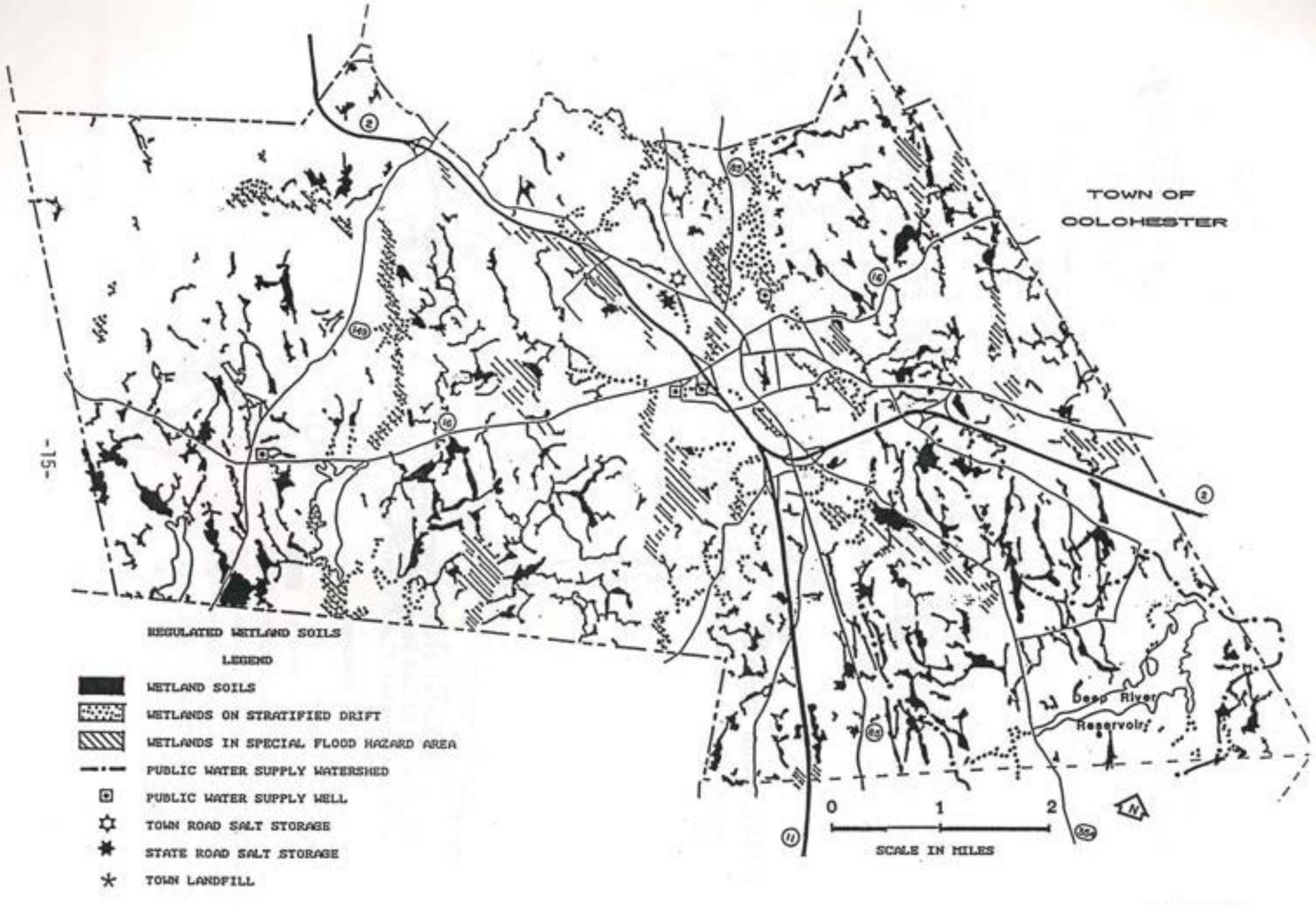
PUBLIC WATER SUPPLY:

Watershed and Surface Water - Deep River Reservoir, Norwich Water Department.

Wells - Colchester Community Water Association, Rt. 16; Colchester Water Department, 3 wells center of Town.

COMMENTS:

Industrial District located east of Route 85 (north) contains wetlands located on coarse-grained stratified drift with small areas within special flood hazard areas. District also contains Landfill and a Public Water Supply Well.


TOWN OF
COLCHESTER
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
TOWN LANDFILL
Bean River
Reservoir
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SCALE IN MILES
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Figure 3

TOWN EAST LYME

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
22,336	3,095	13.8

1980 LAND USE TOTALS (Acres)

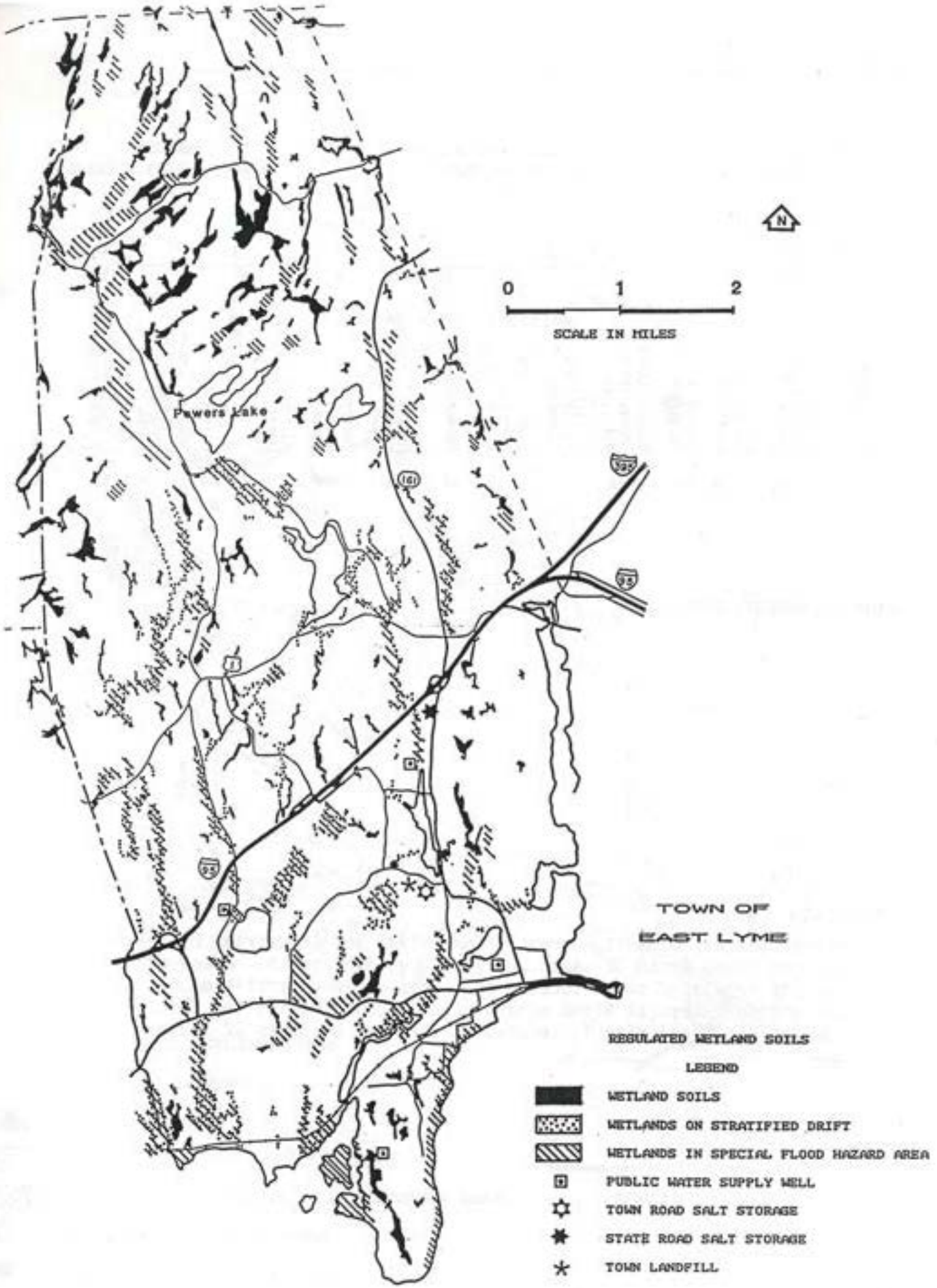
Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
1,135	1,772	33	49	954	3,546	166	152	7,807	1,471	0	1,204	2,675	11,854

PUBLIC WATER SUPPLY:

Wells - East Lyme Water Commission (3 wells); Black Point Water Company, Inc..

COMMENTS:

Light Industrial District on west side of Town located between Interstate 95 and West Main Street contains wetlands located within a special flood hazard area.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Powers Lake
TOWN OF
EAST LYME
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
TOWN LANDFILL

Figure 4

TOWN FRANKLIN

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
12,543	2,130	16.9

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
35	375	24	24	258	3	11	68	798	602	0	113	715	11,030

PUBLIC WATER SUPPLY: N/A

COMMENTS:

Primary areas to monitor are the Commercial and Industrial Districts located along Route 32 south and along Route 87 south. These areas contain regulated soils located on coarse-grained stratified drift and within a special flood hazard area. Additionally, the State road-salt storage site is located on the west of Route 32 south.

REGULATED WETLAND SOILS

LEGEND

WETLAND SOILS

WETLANDS ON STRATIFIED DRIFT

WETLANDS IN SPECIAL FLOOD HAZARD AREA

TOWN ROAD SALT STORAGE

STATE ROAD SALT STORAGE

0 1 2

SCALE IN MILES

Figure 5

TOWN GRISWOLD

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
22,400	3,037	13.5

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
415	898	95	52	739	30	22	37	2,288	2,967	301	597	3,865	16,247

PUBLIC WATER SUPPLY:

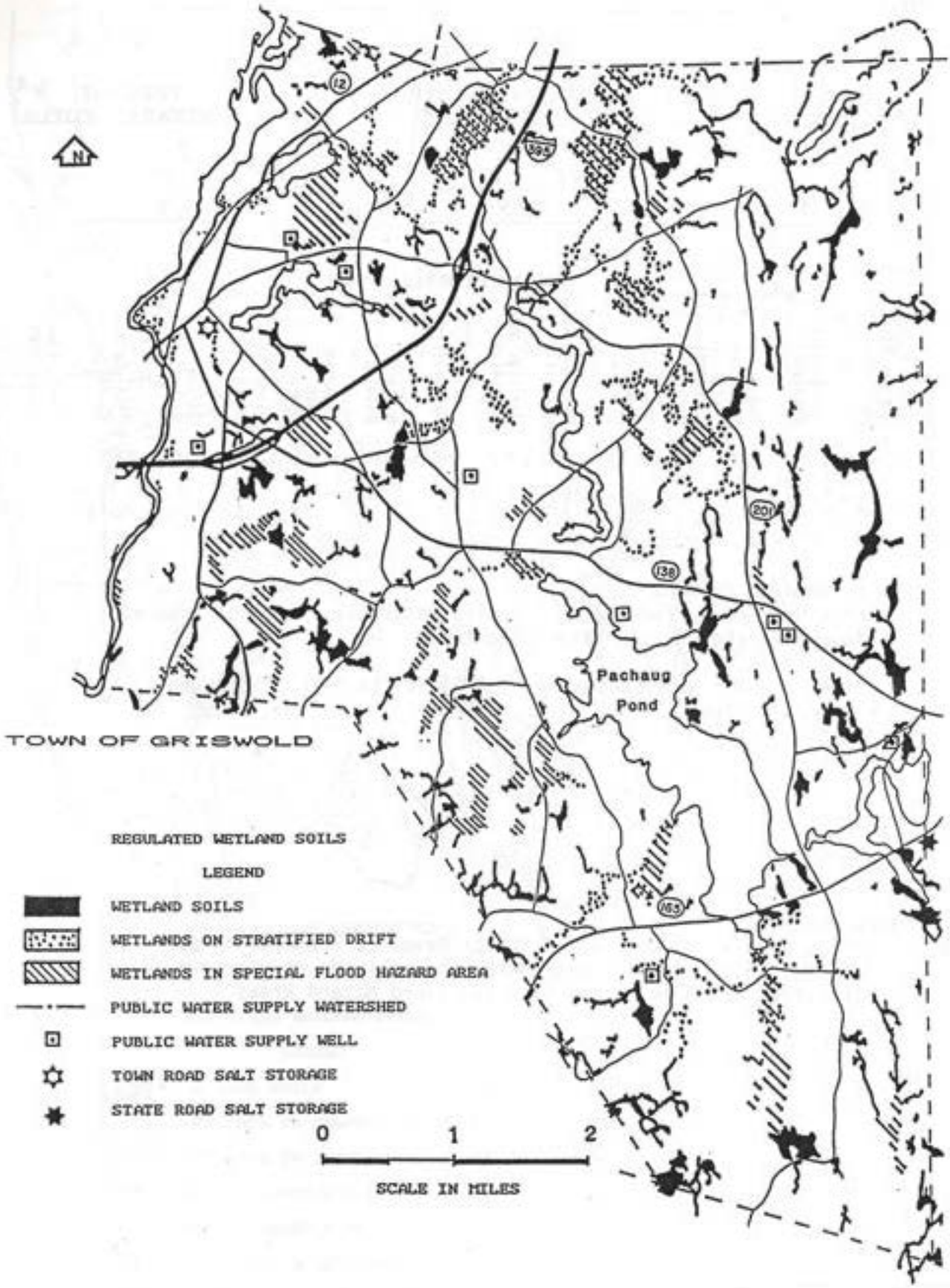
Watershed and Surface Water - Stone Hill Reservoir, AKA Jewett City Reservoir, Jewett City Water Company.

Wells - Jewett City Water Company well # 4; Summitt Convalescent Home; Connolly's Trailer Park; S.W. Enterprises; Valley of the A's; Country Mobile Estates; Lakeview Mobile Home Park; Bay Mountain Subdivision.

COMMENTS:

Village Commercial District located on Route 12 (north) contains wetland area located on coarse-grained stratified drift and within a special flood hazard area.

Highway Commercial District located on Route 201 contains wetland area located within a special flood hazard area.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TOWN OF GRISWOLD
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
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1
2
SCALE IN MILES

Figure 6

TOWN GROTON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
18,944	2,639	13.9

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
3,343	734	162	243	2,094	642	497	361	8,076	1,167	1,137	1,186	3,490	7,378

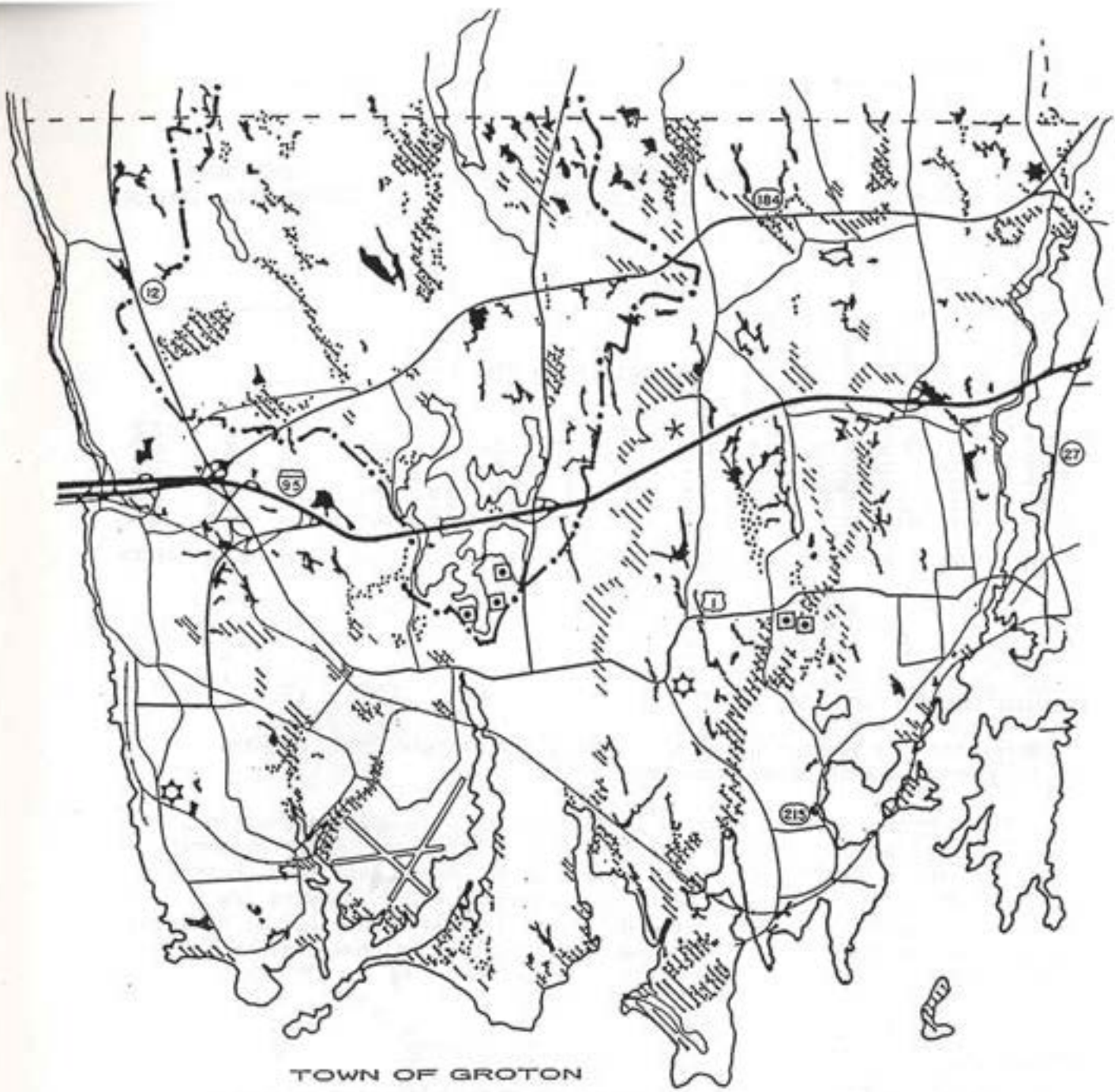
PUBLIC WATER SUPPLY:

Watershed and Surface Water - Groton Reservoir, Pohegnut Reservoir, Poquonock Lake, Groton Water Department.

Wells - Groton Water Department; (Mystic) Eastern Division S.E. Conn. Water Authority.

COMMENTS:

Zoning Regulations contain a "Water Resource Protection" overlay District which covers areas containing wetlands on coarse-grained stratified drift and within special flood hazard areas.



TOWN OF GROTON

REGULATED WETLAND SOILS

LEGEND

- WETLAND SOILS
- WETLANDS ON STRATIFIED DRIFT
- WETLANDS IN SPECIAL FLOOD HAZARD AREA
- PUBLIC WATER SUPPLY WATERSHED
- PUBLIC WATER SUPPLY WELL
- TOWN ROAD SALT STORAGE
- STATE ROAD SALT STORAGE
- TOWN LANDFILL

N

0 1 2

SCALE IN MILES

Figure 7

TOWN LEDYARD

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
25,088	3,477	13.8

1980 LAND USE TOTALS (Acres) *

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
938	1,582	85	15	665	185	271	62	3,803	939	1,541	727	3,207	18,078

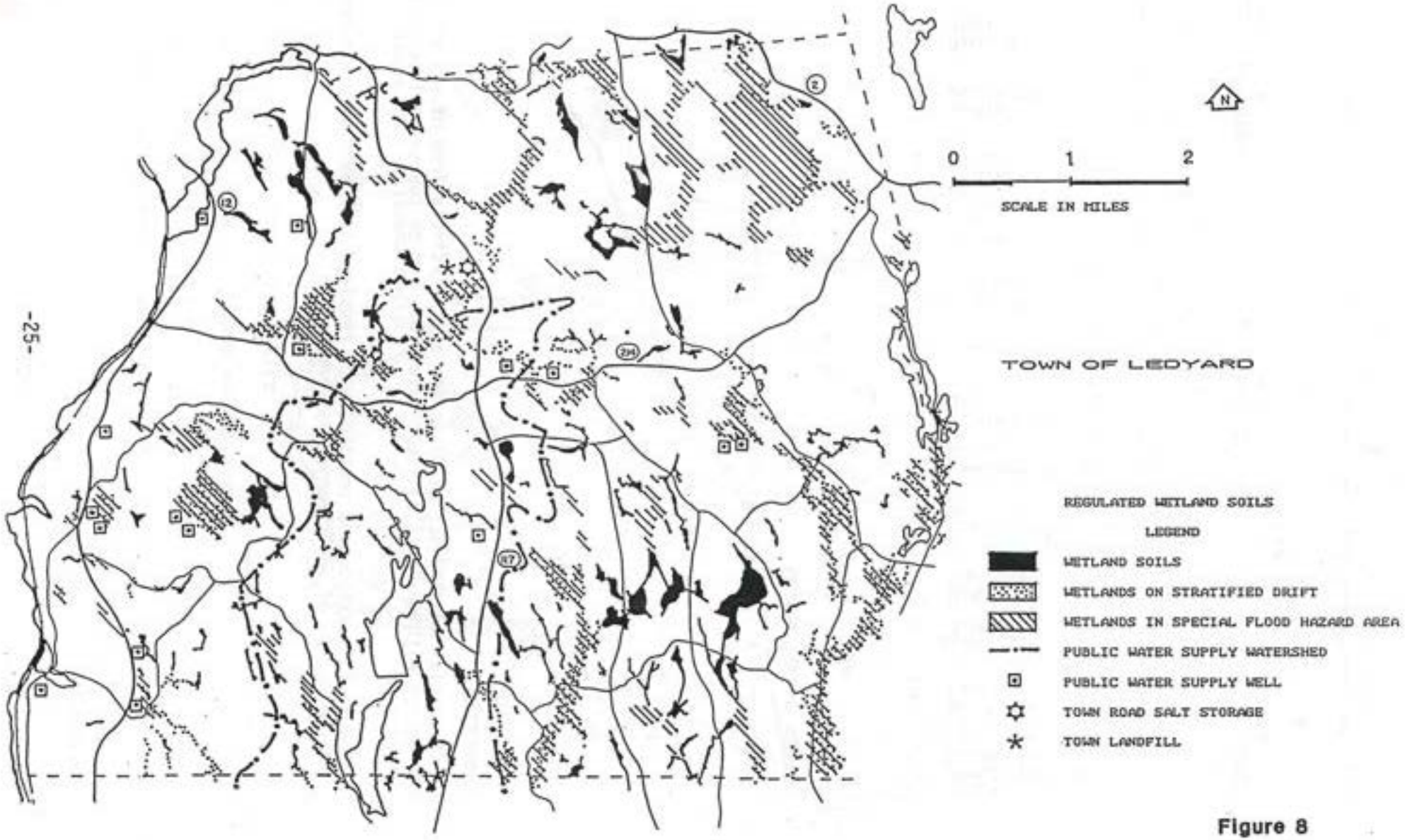
PUBLIC WATER SUPPLY:

Watershed and Surface Water - Rosemond Lake, Morgan Pond, Ledyard Reservoir, Groton Water Department.

Wells - Pfizer System, Avery Hill Road; Ferry View Heights Division, S.E. Conn. Water Authority; Tower Division, S.E. Conn. Water Authority (Pine Swamp); Grey Farms Division, S.E. Conn. Water Authority; Barret Division, S.E. Conn. Water Authority; Lifetime Homes, Ledyard Sewer and Water Authority; Avery Hill Water Assn; Williamsburg Apts.; Pheasant Run; Christy Hill Apts.; Grandview Trailer Park; Colonel Ledyard Mobile Home Park.

COMMENTS:

Industrial District on Route 2 contains wetlands located on coarse-grained stratified drift and within a special flood hazard area.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SCALE IN MILES
TOWN OF LEDYARD
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
TOWN LANDFILL

Figure 8

TOWN LISBON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
10,688	1,433	13.4

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
120	617	68	3	648	2	16	43	1,517	18	0	99	117	9,054

PUBLIC WATER SUPPLY:

Wells - Graham Water Company; Hill-N-Dale Acres.

COMMENTS:

Commercial and Industrial Districts are relatively free of wetland areas located within a special flood hazard area or on coarse-grained stratified drift.

Industrial development proposals are required to submit an environmental impact study of the proposed development.

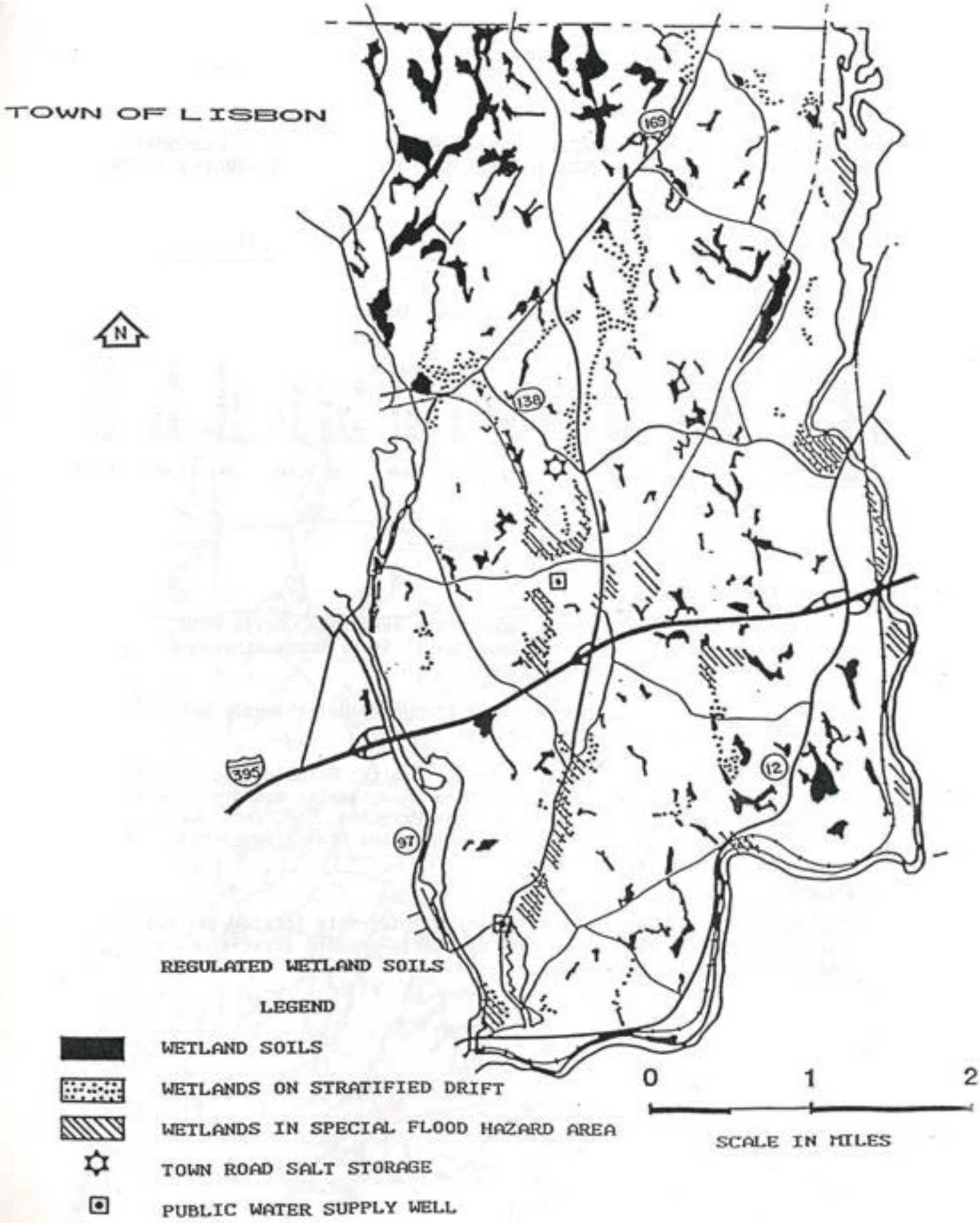

TOWN OF LISBON
N
169
138
395
12
97
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
TOWN ROAD SALT STORAGE
PUBLIC WATER SUPPLY WELL
0
1
2
SCALE IN MILES

Figure 9

TOWN MONTVILLE

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
27,648	3,186	11.5

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
1,602	947	344	62	1,147	149	42	125	4,418	13	1,547	539	2,099	21,131

PUBLIC WATER SUPPLY:

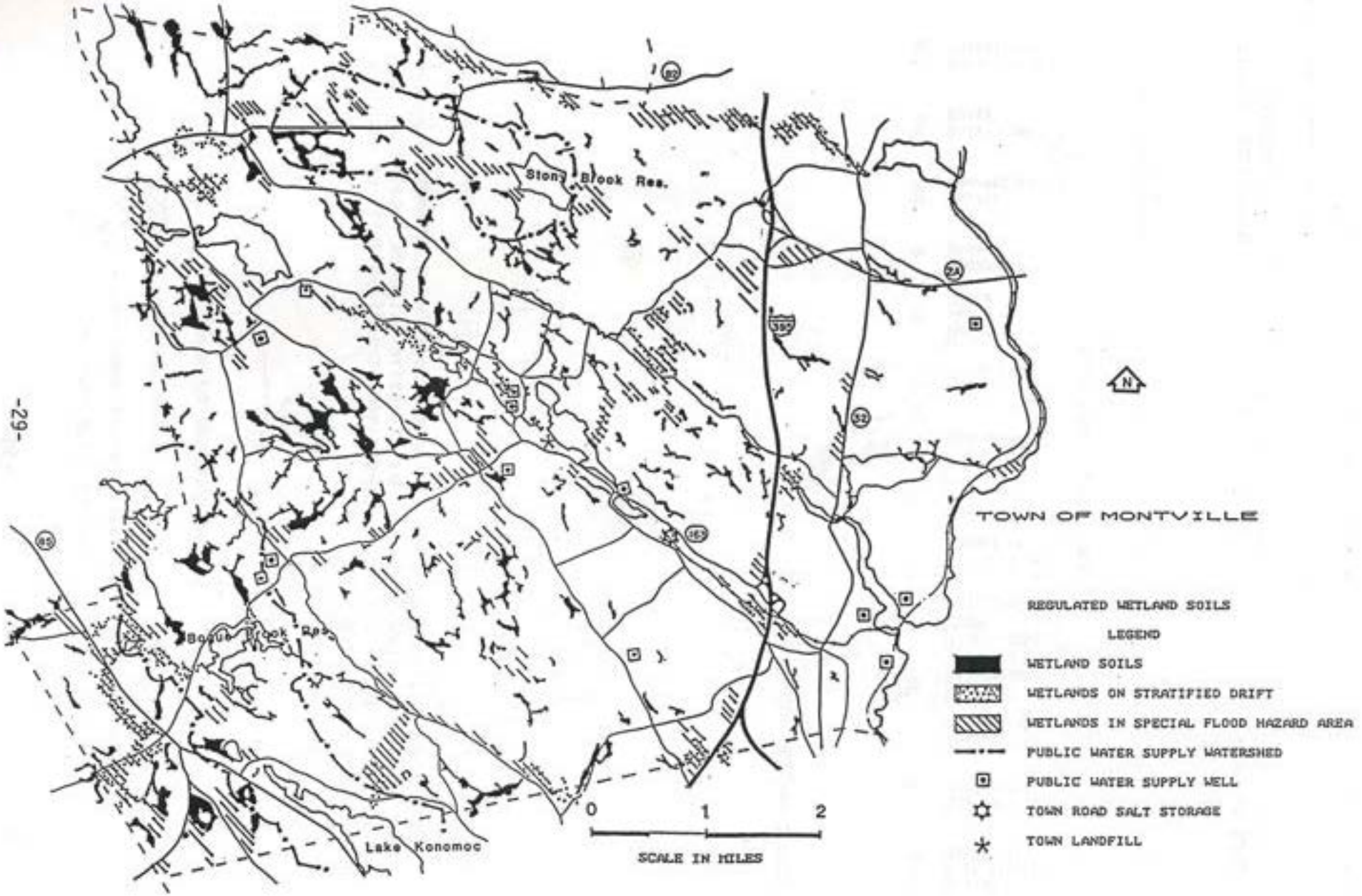
Watershed and Surface Water - Bogue Brook Reservoir, Davis Pond, Lake Konomoc, New London Water Department; Stony Brook Reservoir (inactive), Norwich Water Department.

Wells - (There are a number of small Community Water Supply wells. This list contains the ;arger systems.)

Montville Division, S.E. Conn. Water Authority; Oakdale Heights Water Association; Floral Park; Lakeside Manor Apartments; Country Estates; Crandall Hill Mobile Home Park; Mohegan Division, S.E. Conn. Water Authority; Marina Cove Mobile Home Park; Lambs Mobile Home Park; Oak Ridge Mobile Home Park.

COMMENTS:

The Manufacturing and Coastal Industrial Districts located in Trading Cove area contain regulated soils on coarse-grained stratified drift and within special flood hazard areas.


Stony Brook Res.
Lake Kenomoc
TOWN OF MONTVILLE
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0
1
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SCALE IN MILES
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
TOWN LANDFILL

Figure 10

TOWN NEW LONDON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
3,497	190	5.4

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
1,370	6	8	55	648	235	337	263	2,922	84	0	286	370	205

PUBLIC WATER SUPPLY: N/A

COMMENTS:

Light Industrial/Office District located north of U.S. Route 1 on the New London/Waterford Town Line has extensive wetlands located on it. These wetlands are not on coarse-grained stratified drift or within a special flood hazard area.

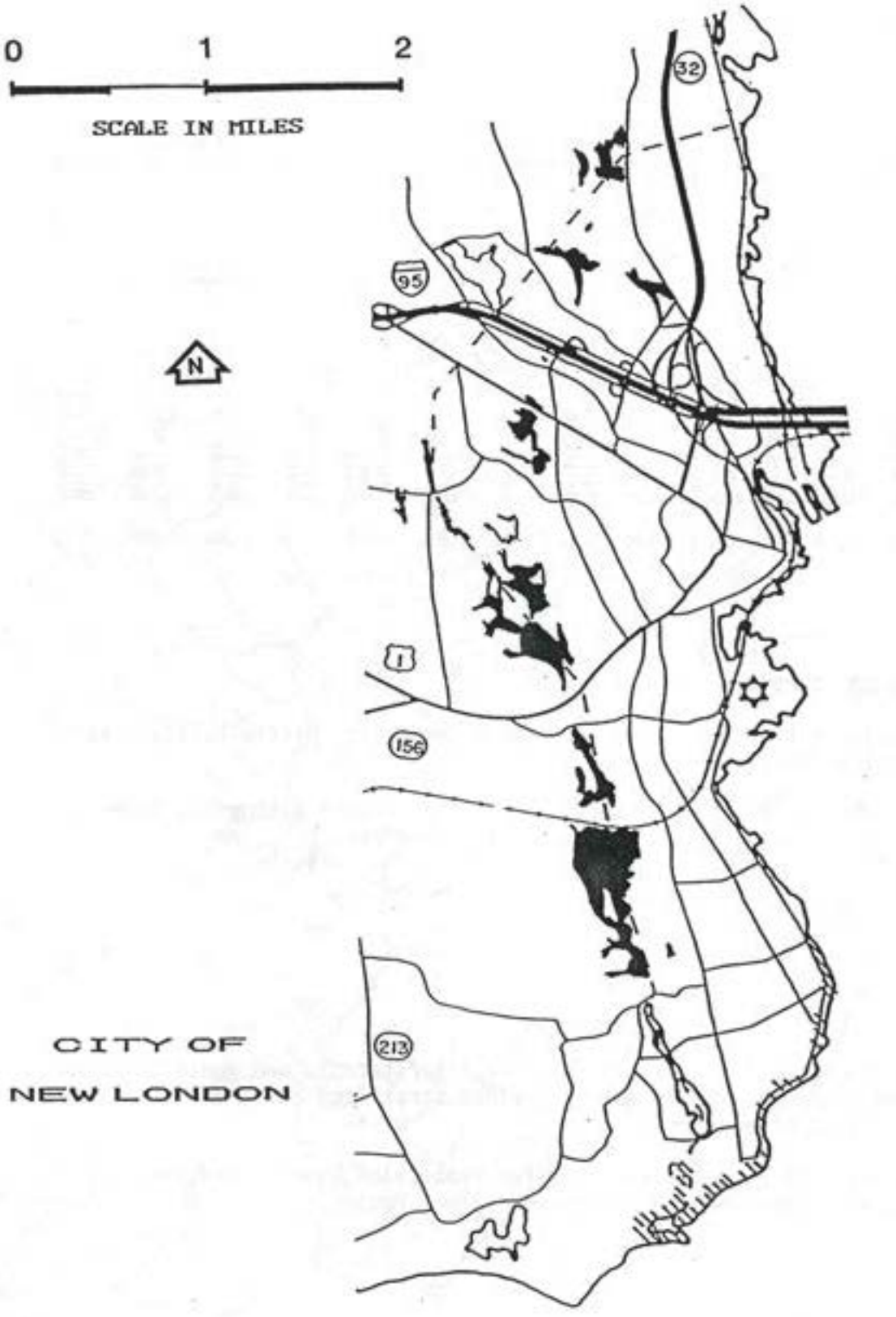

0
1
2
SCALE IN MILES
N
32
95
1
156
213
CITY OF
NEW LONDON
REGULATED WETLAND SOILS
WETLAND SOILS
WETLANDS IN SPECIAL FLOOD HAZARD AREA
TOWN ROAD SALT STORAGE

Figure 11

TOWN NORTH STONINGTON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
35,264	4,879	13.8

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
136	805	259	13	536	39	21	50	1,859	3,297	0	1,396	4,693	28,712

PUBLIC WATER SUPPLY:

Watershed - Palmer Reservoir AKA Mystic Reservoir, Mystic Valley District, CT. American Water Company.

Wells - North Stonington Division, S.E. Conn. Water Authority; Cedar Ridge Water Assn.; Morgan Stewart Mobile Home Park.

COMMENTS:

Highway Commercial District located at Interstate 95 and Route 216 contains wetlands located on coarse-grained stratified drift and within a special flood hazard area.

Zoning regulations contain an Aquifer Protection Overlay District which covers areas of special concern along Route 2.

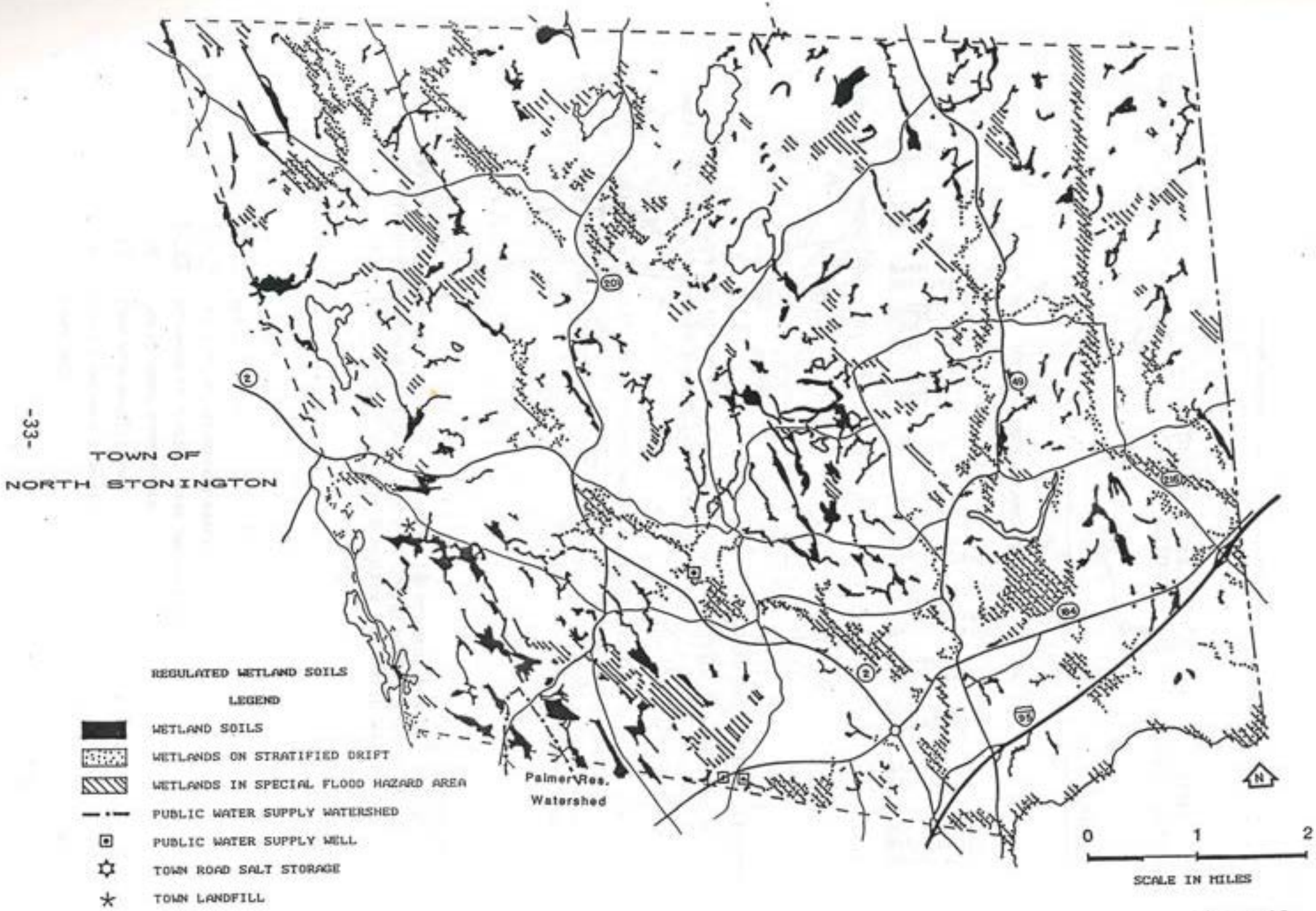

TOWN OF
NORTH STONINGTON
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
TOWN LANDFILL
Palmer Res.
Watershed
N
0
1
2
SCALE IN MILES

Figure 12

TOWN NORWICH

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
17,999	1,592	8.8

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
3,197	646	125	152	1,934	119	212	363	6,748	767	247	555	1,569	9,682

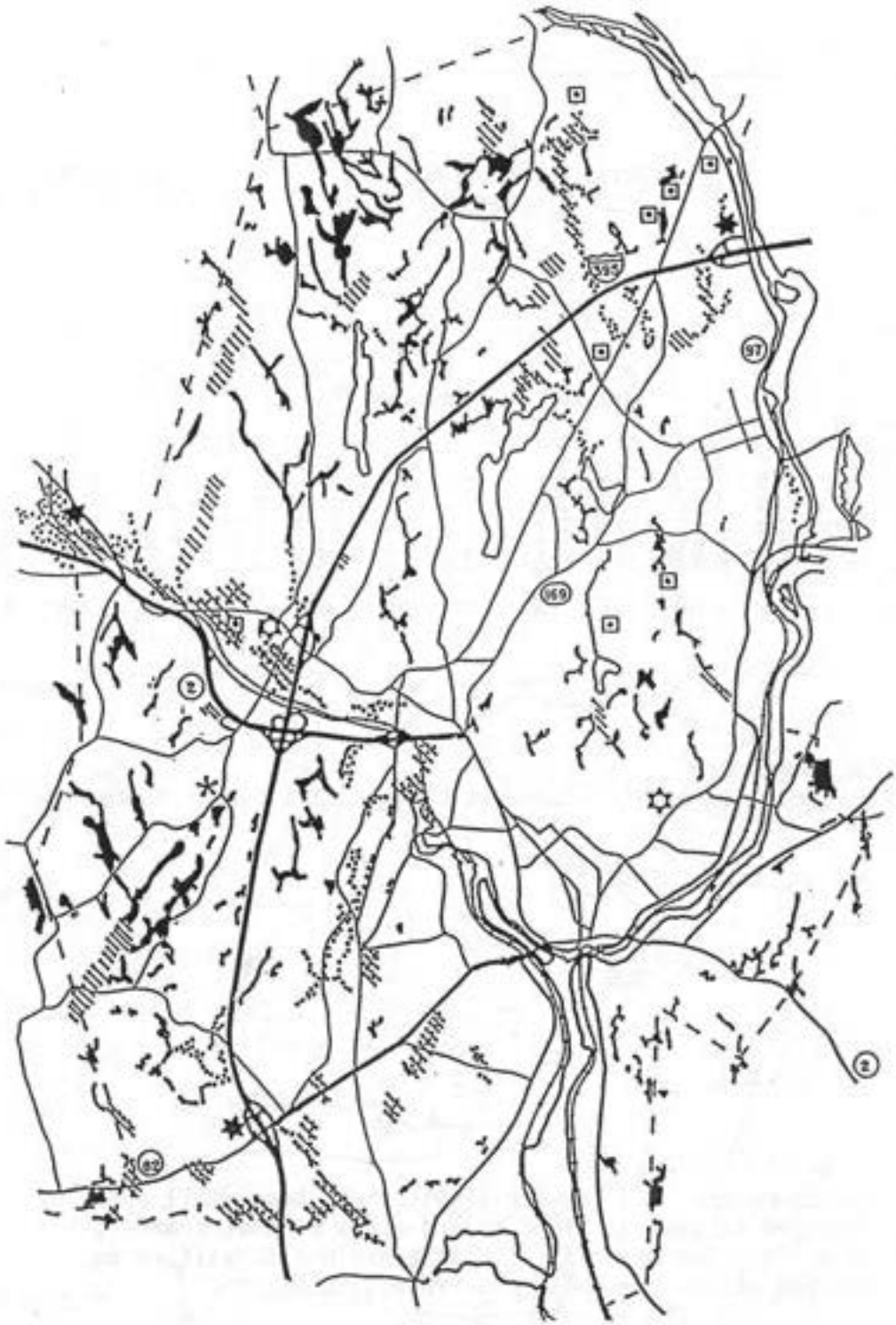
PUBLIC WATER SUPPLY:

Watershed and Surface Water (inactive) - Fairview Reservoir, Taftville Reservoir, Taftville Reservoir #2, Bog Meadow Reservoir, Norwich Water Department.

Wells - Bouoff well, Norwich Water Department; Pleasure Valley Mobile Home Park; Occum Water Company; Arpin Court Supply; Sunny Waters Mobile Home Park; Lawler Lane Supply; Oakdale Heights Mobile Home Park; Little Valley Mobile Home Village.

COMMENTS:

Commercial and Industrial Districts bordered by West Town Street, Route 2, and Interstate 395 contain wetlands on coarse-grained stratified drift and within a special flood hazard area.


CITY OF
NORWICH
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REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
TOWN LANDFILL
0
1
2
SCALE IN MILES

Figure 13

TOWN PRESTON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
19,780	4,056	20.5

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
340	770	28	2	590	384	190	50	2,354	506	0	170	676	16,750

PUBLIC WATER SUPPLY:

Wells - Country Squire Water Company; Lincoln Park Senior Community Center.

COMMENTS:

Many of the Commercial and Industrial Districts have small areas of wetlands located in special flood hazard areas without coarse-grained stratified drift. The majority of coarse-grained stratified drift in Town is located within the Amos Lake Protection District.

The Town will designate a local authority to regulate wetland and watercourse activity by July 1, 1988.

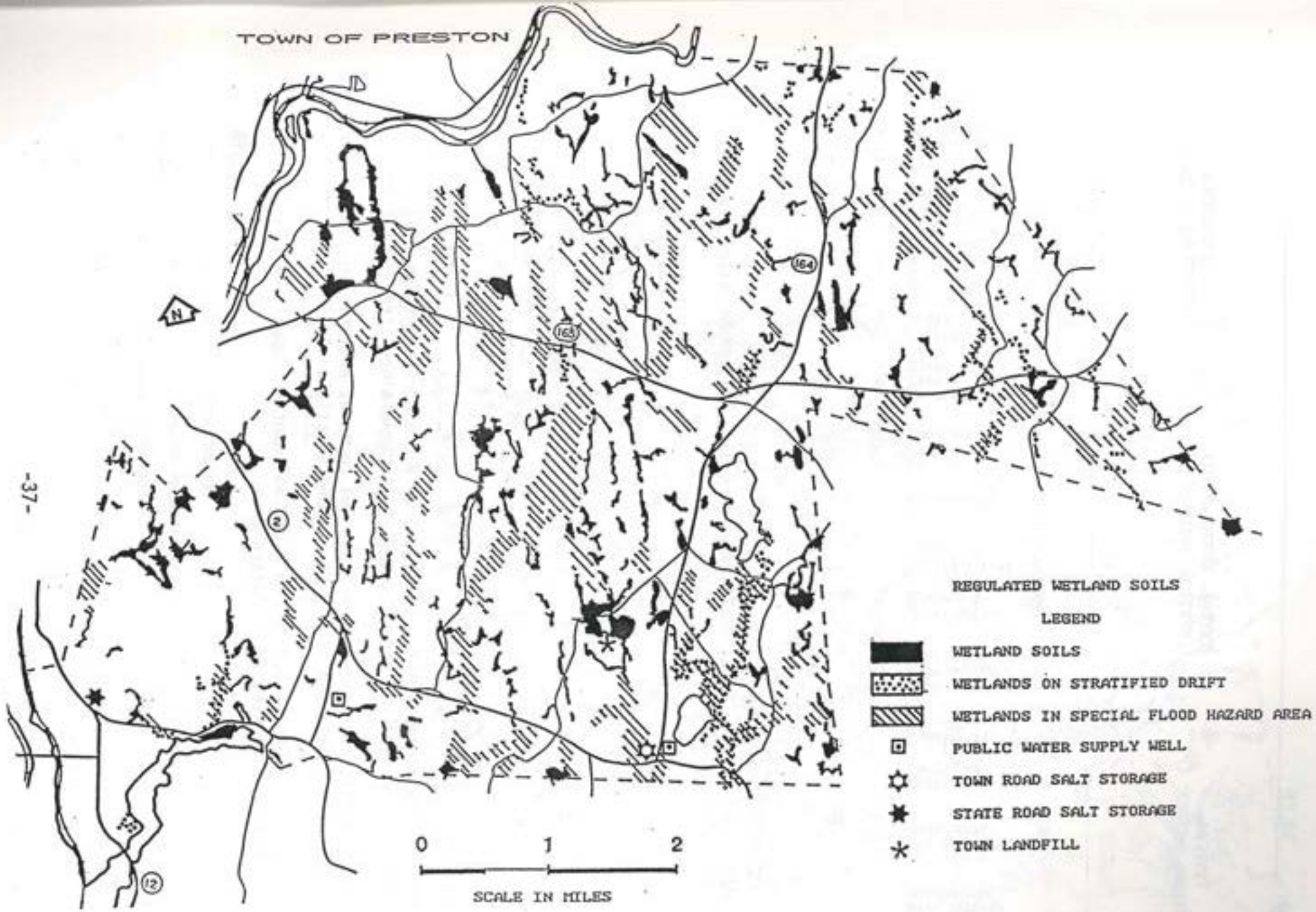

TOWN OF PRESTON
N
164
165
2
12
0
1
2
SCALE IN MILES
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
TOWN LANDFILL

Figure 14

TOWN SALEM

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
18,238	2,899	15.8

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
14	733	35	2	586	13	11	36	1,430	883	933	272	2,088	14,720

PUBLIC WATER SUPPLY:

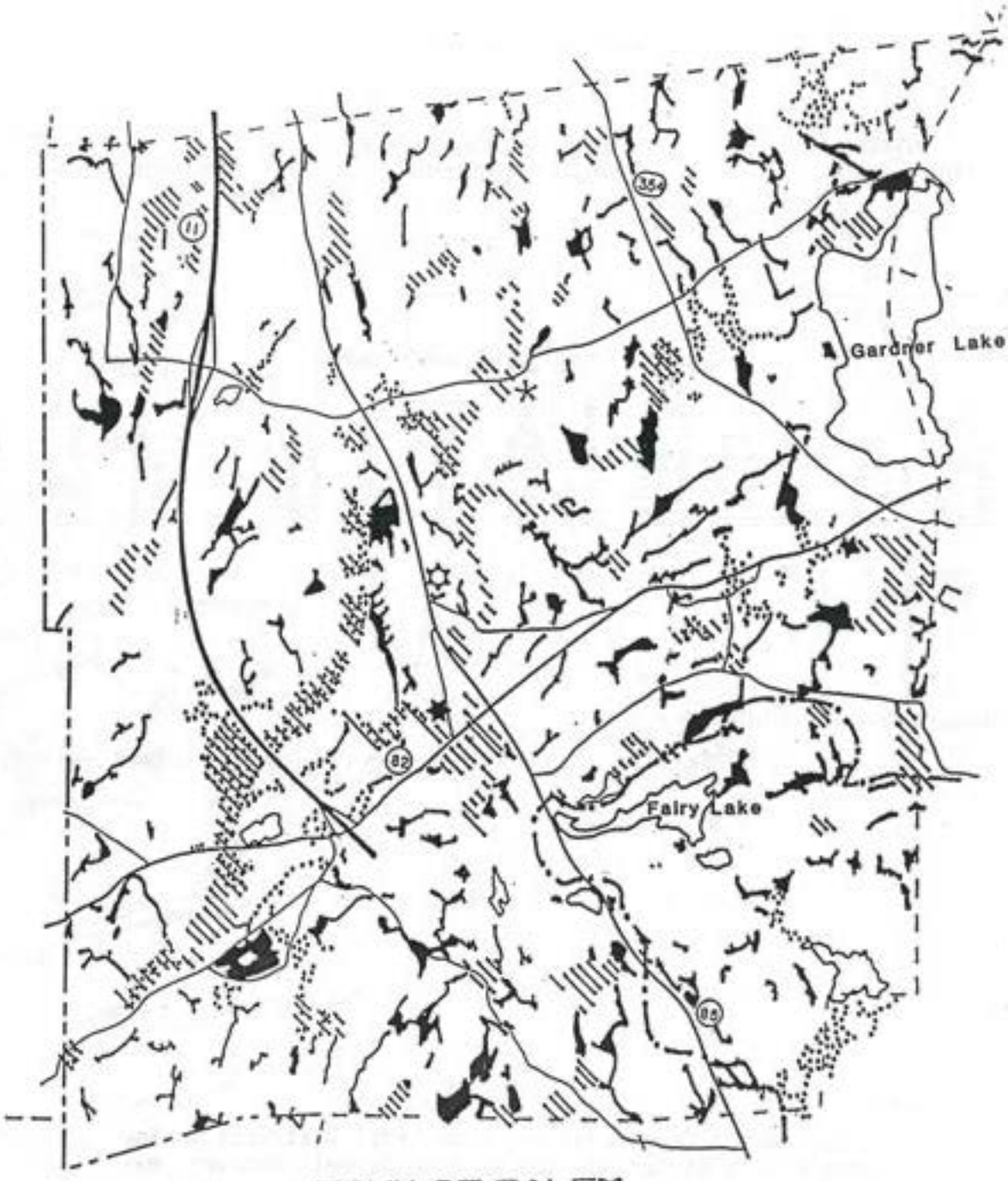
Watershed - Fairy Lake and Barnes Reservoir, New London Water Department.

COMMENTS:

Highway Commercial District located on Route 82 east of Route 11 contains modest sized wetland area located on coarse-grained stratified drift.

Business District located on Route 354 contains wetlands in a special flood hazard area and on coarse-grained stratified drift.

Industrial District located on Route 354 contains small wetland area located in a special flood hazard area.



REGULATED WETLAND SOILS

LEGEND

- WETLAND SOILS
- WETLANDS ON STRATIFIED DRIFT
- WETLANDS IN SPECIAL FLOOD HAZARD AREA
- PUBLIC WATER SUPPLY WATERSHED
- TOWN ROAD SALT STORAGE
- STATE ROAD SALT STORAGE
- TOWN LANDFILL

N

0 1 2

SCALE IN MILES

Figure 15

TOWN SPRAGUE

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
8,448	1,084	12.8

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
124	361	85	92	253	19	15	12	961	20	497	166	683	6,804

PUBLIC WATER SUPPLY:

Watershed and Surface Water - Baltic Reservoir, Sprague Water and Sewer Authority

COMMENTS:

Of the four major Commercial and Industrial Districts in Town only one, the Industrial District located on Main Street, Hanover, has a small wetland area located on coarse-grained stratified drift and within a special flood hazard area.

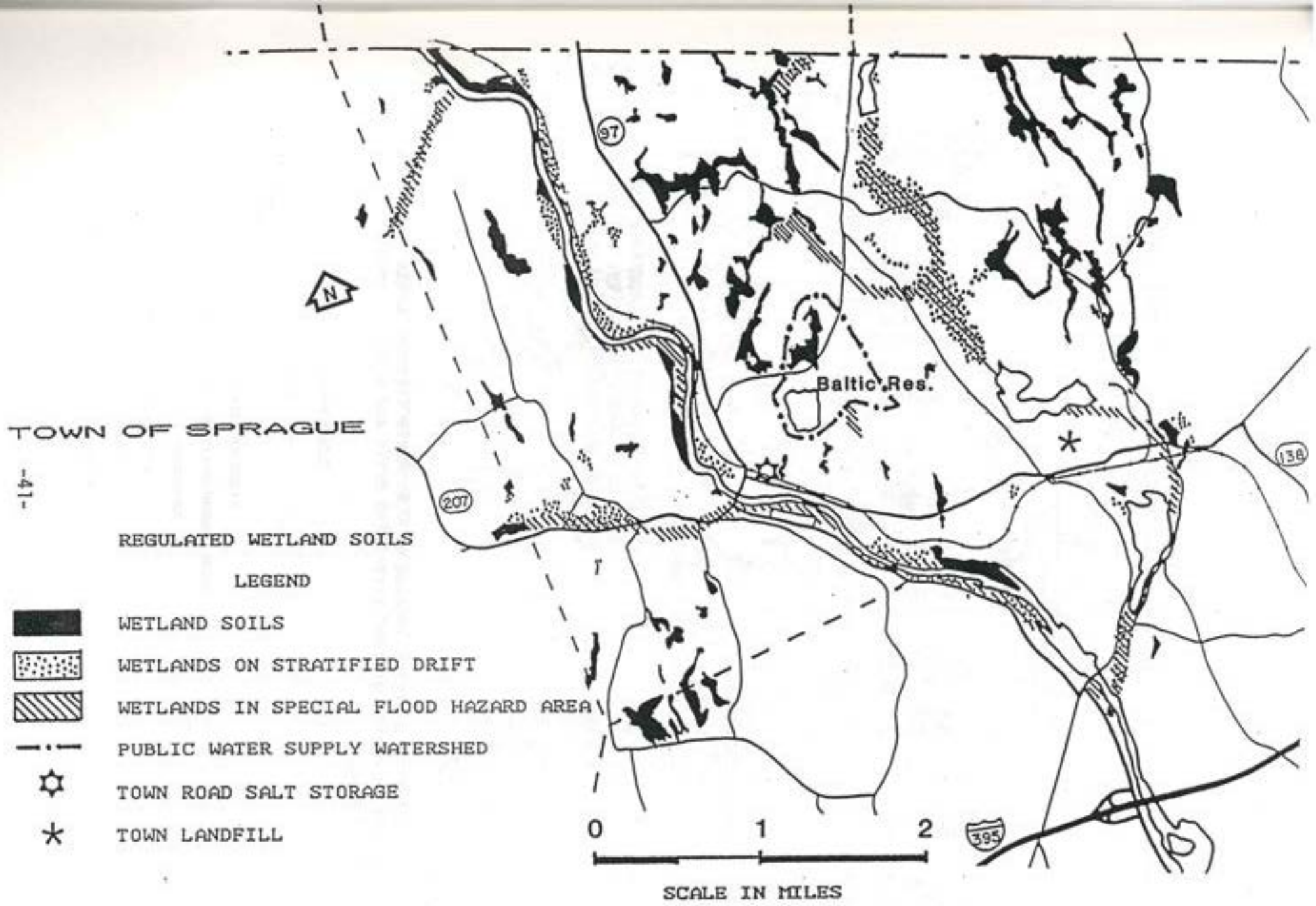

TOWN OF SPRAGUE
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
TOWN ROAD SALT STORAGE
TOWN LANDFILL
N
97
207
Baltic Res.
138
395
0
1
2
SCALE IN MILES

Figure 16

TOWN STONINGTON

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
25,152	5,277	20.9

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
1,399	1,191	32	92	853	68	58	269	3,962	269	167	1,311	1,747	19,443

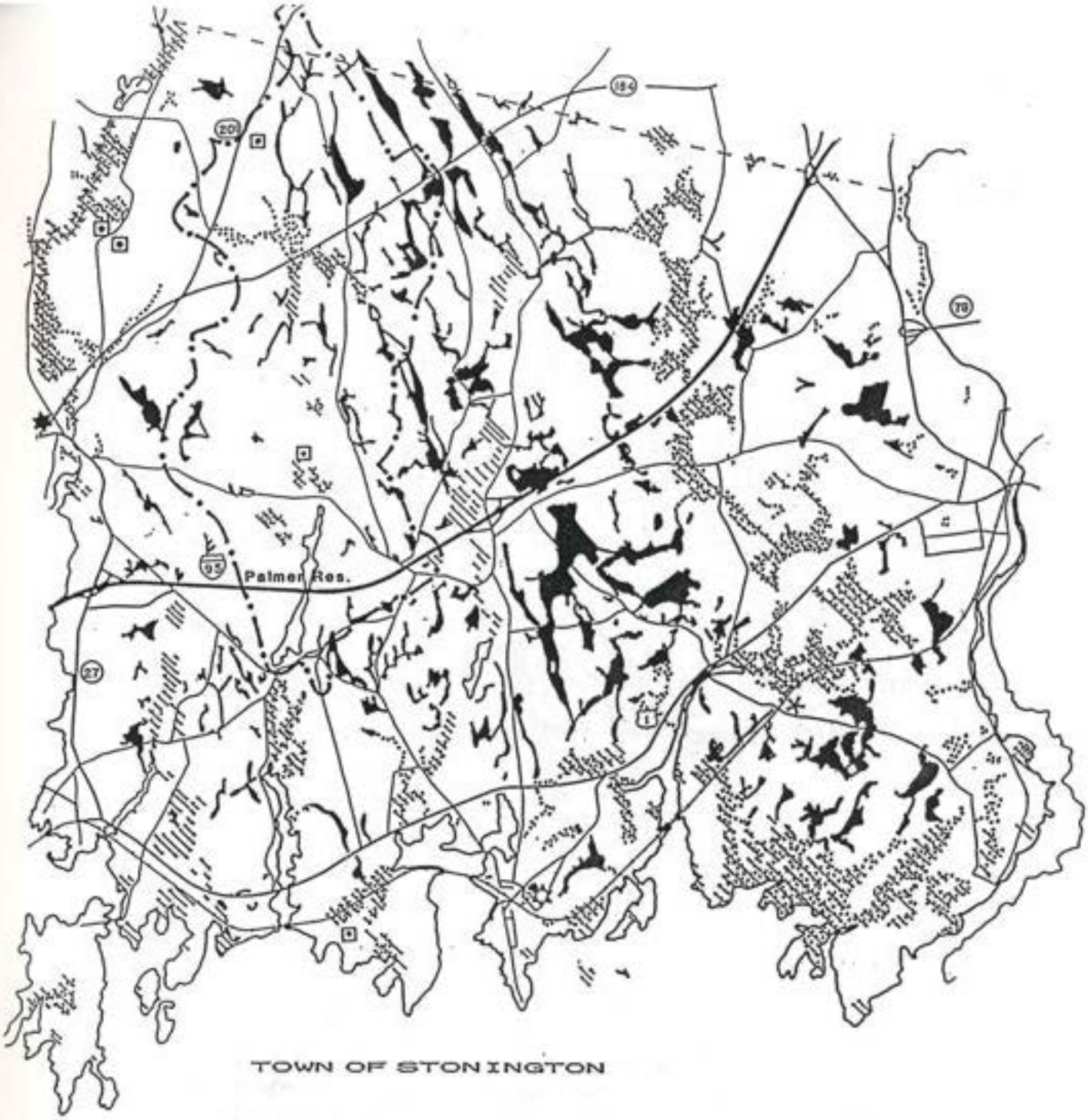
PUBLIC WATER SUPPLY:

Watershed and Surface Water - Palmer Reservoir AKA Mystic Reservoir, Mystic Valley District, CT. American Water Company.

Wells - Lantern Hill Well, Mystic Valley District, CT. American Water Company; Lantern Hill Division, S.E. Conn. Water Authority; Copps Well, CT. American Water Company; Arlington Acres Trailer Park; Lord's Point.

COMMENTS:

Manufacturing District located on U.S. Route 1 (east) contains wetlands located on coarse-grained stratified drift and within a special flood hazard area.



REGULATED WETLAND SOILS

LEGEND

- WETLAND SOILS
- WETLANDS ON STRATIFIED DRIFT
- WETLANDS IN SPECIAL FLOOD HAZARD AREA
- PUBLIC WATER SUPPLY WATERSHED
- PUBLIC WATER SUPPLY WELL
- TOWN ROAD SALT STORAGE
- STATE ROAD SALT STORAGE
- TOWN LANDFILL

N

0 1 2

SCALE IN MILES

Figure 17

TOWN VOLUNTOWN

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
25,216	4,595	18.2

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
112	358	9	4	409	11	10	10	923	14,212	0	93	14,305	9,988

PUBLIC WATER SUPPLY:

Well - SDC Water Company (Beach Pond).

COMMENTS:

Automotive service uses are permitted Town-wide by Special Permit. These uses involve the underground storage of fuels as well as waste oil storage. The Special Permit procedures should be adequate to review development proposals.

The Town will designate a local authority to regulate wetland and watercourse activity by July 1, 1988.

Beach Pond
TOWN OF VOLUNTOWN
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2
SCALE IN MILES
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WELL
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
TOWN LANDFILL

Figure 18

TOWN WATERFORD

TOTAL TOWN ACRES	TOTAL REGULATED SOILS (ACRES)	PERCENT REGULATED SOILS
21,376	2,865	13.4

1980 LAND USE TOTALS (Acres)

Medium & High Density Residential	Low Density Residential	Industrial Extensive	Industrial Intensive	Transportation Communication Utilities	Institutional Extensive	Institutional Intensive	Commercial	Total Developed	Reserved Open Space	Reservoir Areas	Active Recreation	Total Open Space	Agriculture & Undeveloped
2,507	645	12	22	2,192	1,255	82	177	6,892	344	396	767	1,507	12,977

PUBLIC WATER SUPPLY:

Watershed and Surface Water - Lake Knomoc AKA New London Reservoir, New London Water Department.

COMMENTS:

The Commercial and Industrial Districts located within the area bordered by Interstate 395 and 95 and Route 85 contain wetlands located on coarse-grained stratified drift and within special flood hazard areas.

Districts adjacent to and south of Interstate 95 also contain wetlands with the same characteristics as those above.

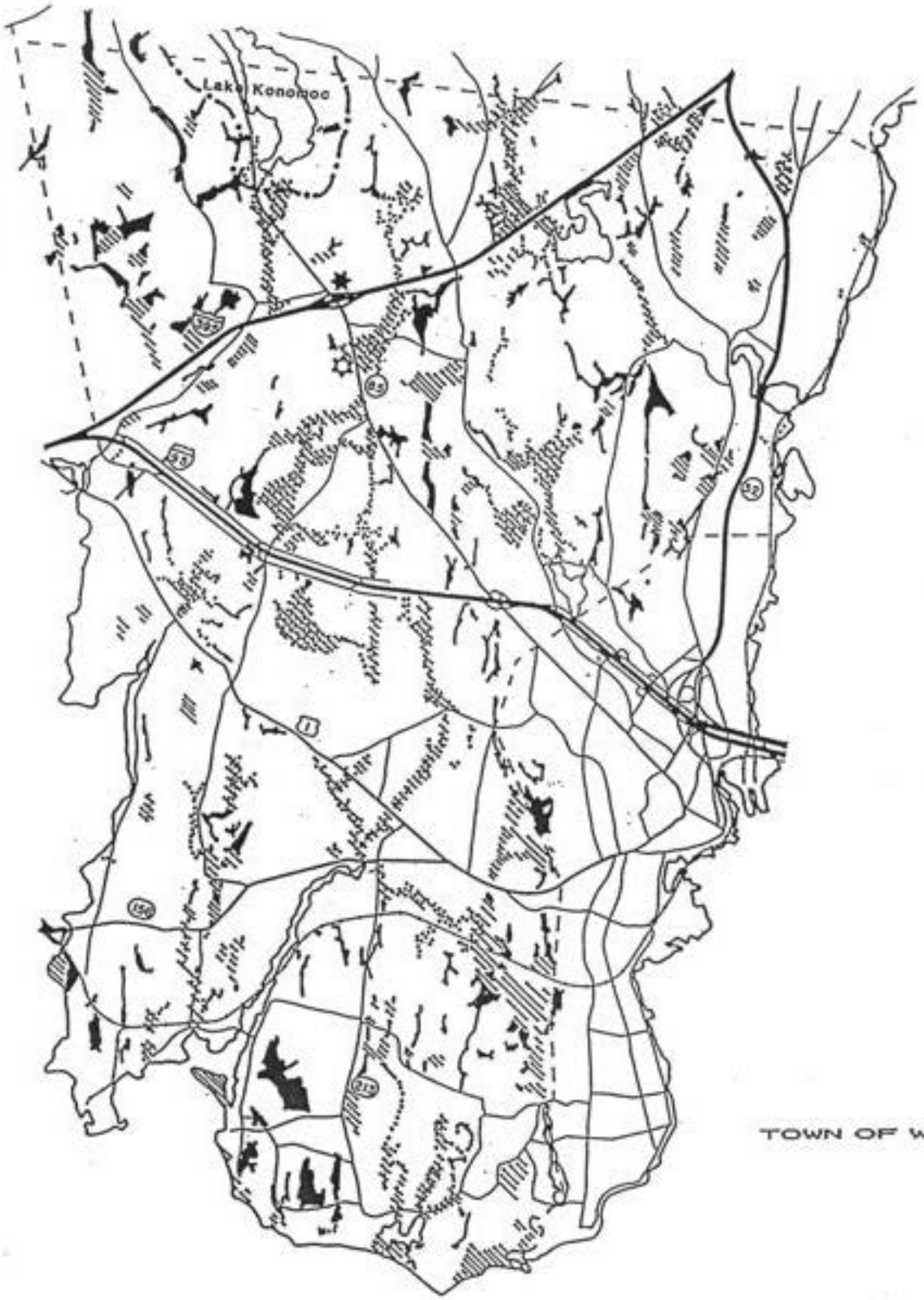
Lake Kanamoo
N
TOWN OF WATERFORD
REGULATED WETLAND SOILS
LEGEND
WETLAND SOILS
WETLANDS ON STRATIFIED DRIFT
WETLANDS IN SPECIAL FLOOD HAZARD AREA
PUBLIC WATER SUPPLY WATERSHED
TOWN ROAD SALT STORAGE
STATE ROAD SALT STORAGE
0 1 2
SCALE IN MILES

Figure 19

REGIONAL SURVEY

SURVEY RESPONSE

The Southeastern Connecticut Regional Planning Agency surveyed local Inland Wetlands Commissions to determine application and permit activity, and staffing and inspection experience.

While the return response of the survey was somewhat low at 44% of regional commissions, the composition of municipal type which did return the survey was proportional to the composition of all municipal types within the region. Accordingly, the sampling is considered representative of local conditions.

The region is comprised of 17% urban communities, 55% suburban communities and 28% rural communities. Figure 20 graphically depicts this information. Figure 21 graphically depicts the survey response by municipal type. Responding were 12.5% of the urban communities, 62.5% of the suburban communities, and 25% of the rural communities.

SURVEY FINDINGS

STAFFING

Whether full-time or part-time, all of the commissions responding have some form of staffing assistance. Half of the responding commissions had full-time staff.

Figure 22 shows the distribution of responses with full-time staff by municipal classification. Full-time assistance was found in 50% of the urban community and in 75% of the suburban community responses. Rural community responses had no full-time staff.

The remaining responses utilize part-time staff assistance. Figure 23 shows this distribution. Part-time staff were found in 50% of the urban community and 25% of the suburban community responses. While 100% of the rural community responses utilize part-time assistance.

Additionally of the part-time staff assistance to Wetland Commissions, all of these staff were shared with other commissions or departments. Sixty-six percent of the part-timers maintained weekly part-time hours to accomplish all the required duties of their various positions, including staffing the Wetland Commission. Seventy-five percent of the part-time Wetland Commission staffers are Building Inspectors as well.

The type(s) of assistance rendered to commissions by full-time staff is basically uniform. Full-time staff are the contact person for application submittals, conduct application reviews, conduct site inspections and enforce regulations.

Part-time staff assistance takes the form of enforcing regulations and site inspections in 75% of the responses with part-time staff. In 25% of the responses with part-time staff, reported duties were primarily clerical, and in these situations, the commission members themselves enforced the regulations and conducted all site inspections.

CLASSIFICATION OF REGIONAL MUNICIPALITIES

As a Percentage

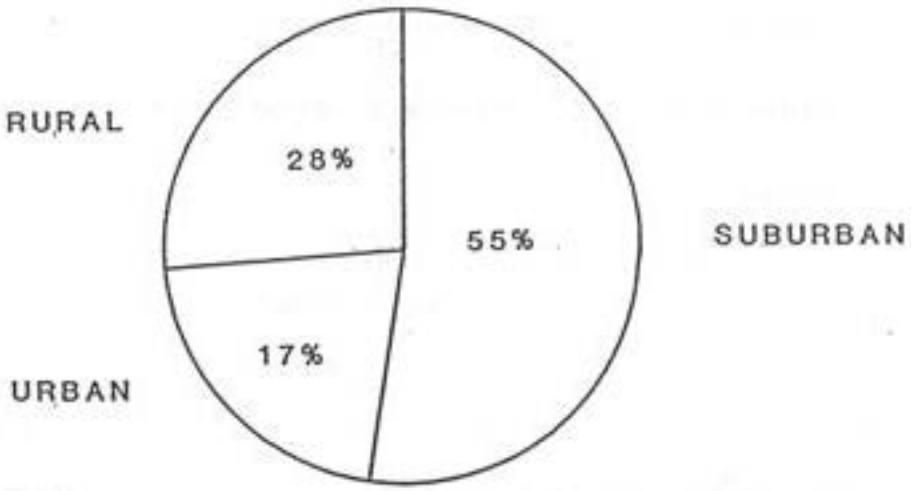

Figure 20

SURVEY RESPONSE BY MUNICIPAL CLASSIFICATION

As a Percentage

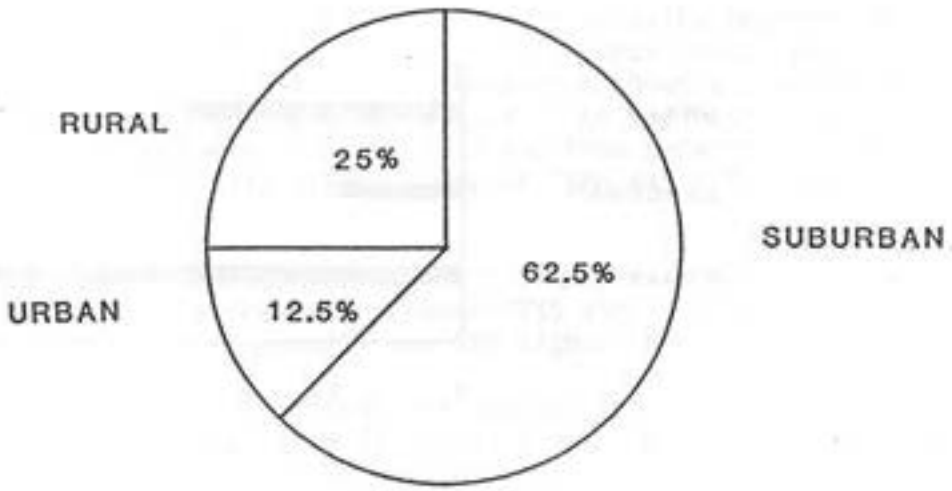

Figure 21

PERCENTAGE OF MUNICIPAL RESPONSE WITH FULL-TIME STAFF

By Classification

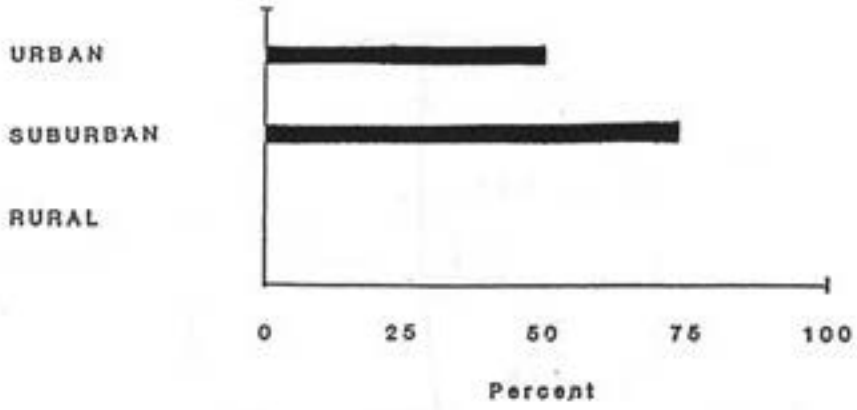

Figure 22

PERCENTAGE OF MUNICIPAL RESPONSE WITH PART-TIME STAFF

By Classification

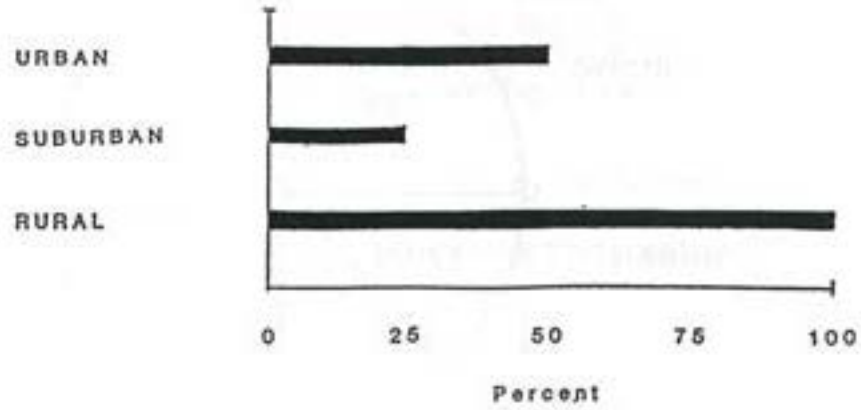

Figure 23

INSPECTIONS

All of the responses indicated that site inspections are considered necessary and important. Site inspections are conducted as part of the application review process and both during and after construction to insure permit compliance. Site inspections are also used to discover violations.

With this scenario for inspection, it can be assumed that the amount of time spent on these inspections has increased significantly with the increase in application and permit activity.

APPLICATION AND PERMIT ACTIVITY

Eighty-seven and one-half percent of the survey responses indicated application and permit activity. The majority, or 71.5%, of those responses reflected actual activity numbers. The remaining 28.5% of activity responses were estimates.

INCLUDING ESTIMATES

Figure 24 graphically depicts the application and permit activity reported for the time period 1984 through 1986. This information shows that application numbers declined slightly between 1984 and 1985, with a 4% decrease. Between 1985 and 1986, application numbers increased by 49%. The overall change in application numbers from 1984 through 1986 was an increase of 41%.

The number of permits issued during this three-year period has increased year by year. Between 1984 and 1985, while application numbers decreased by 4%, permits issued increased by 10%. Between 1985 and 1986, when application numbers increased by 49%, permits increased by 41%. The overall change in number of permits issued from 1984 through 1986 was an increase of 56%, as shown in Figure 25.

WITHOUT ESTIMATES

Figure 26 depicts the application and permit activity reported by the survey without numbers listed as estimates. This actual count data was submitted with 62% of the responses. This information shows a similar pattern of activity as that which included estimated data. The application numbers decreased slightly (-6%) between 1984 and 1985 and then between 1985 and 1986 increased by 55%. The activity at the close of 1986 was 46% higher than the activity of 1984.

The number of permits issued during this time period increased by 12% between 1984 and 1985. The increase between 1985 and 1986 was 44%. Compared with 1984, the number of 1986 permits was 62% higher (Figure 27).

In both of the above tabulations, the application rate and the rate of permits issued increased substantially during this time period. Both tabulations also show the same pattern for the three-year period. This pattern also shows a permit issued to application received ratio of approximately two to three or roughly 66-72%.

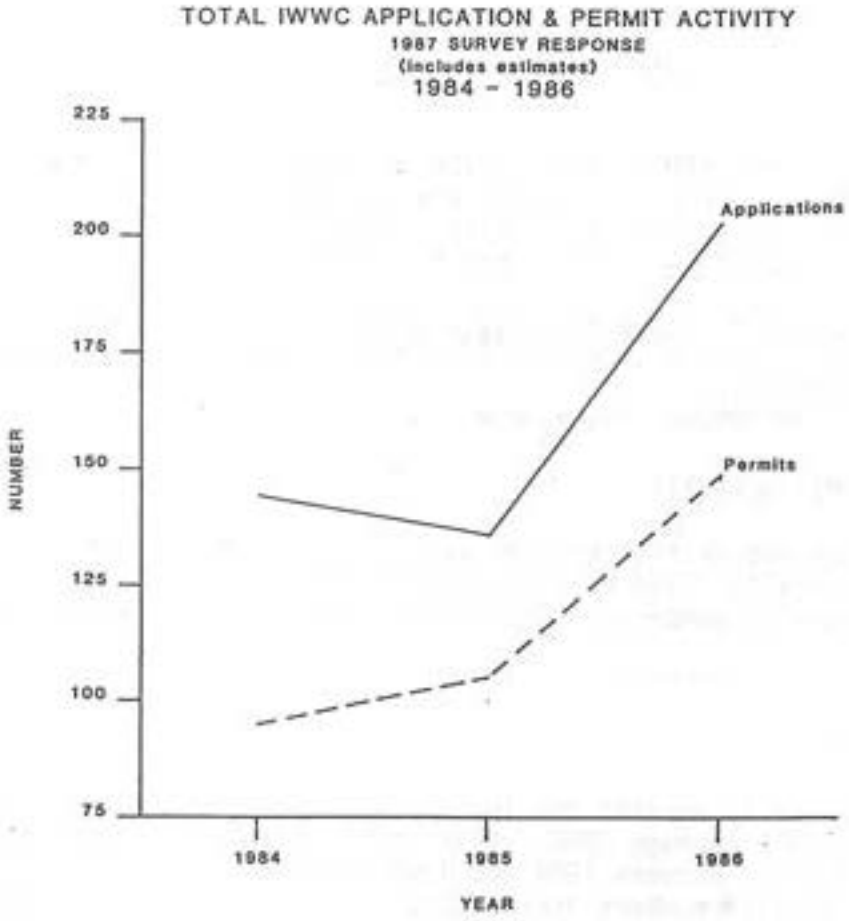

Figure 24

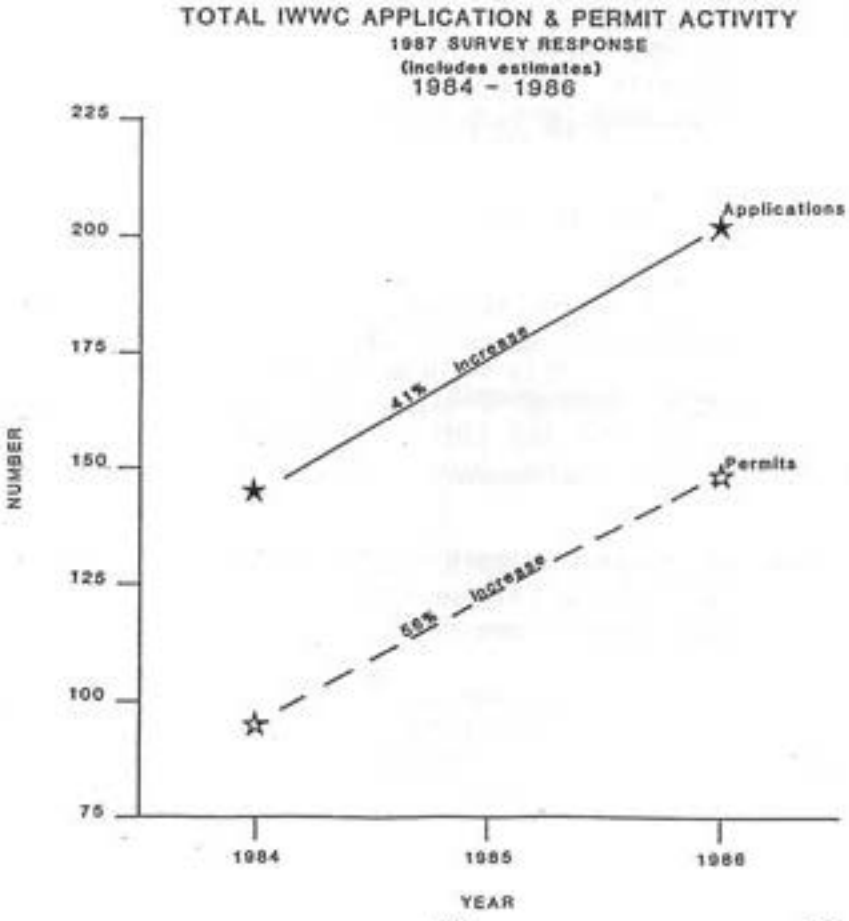

Figure 25

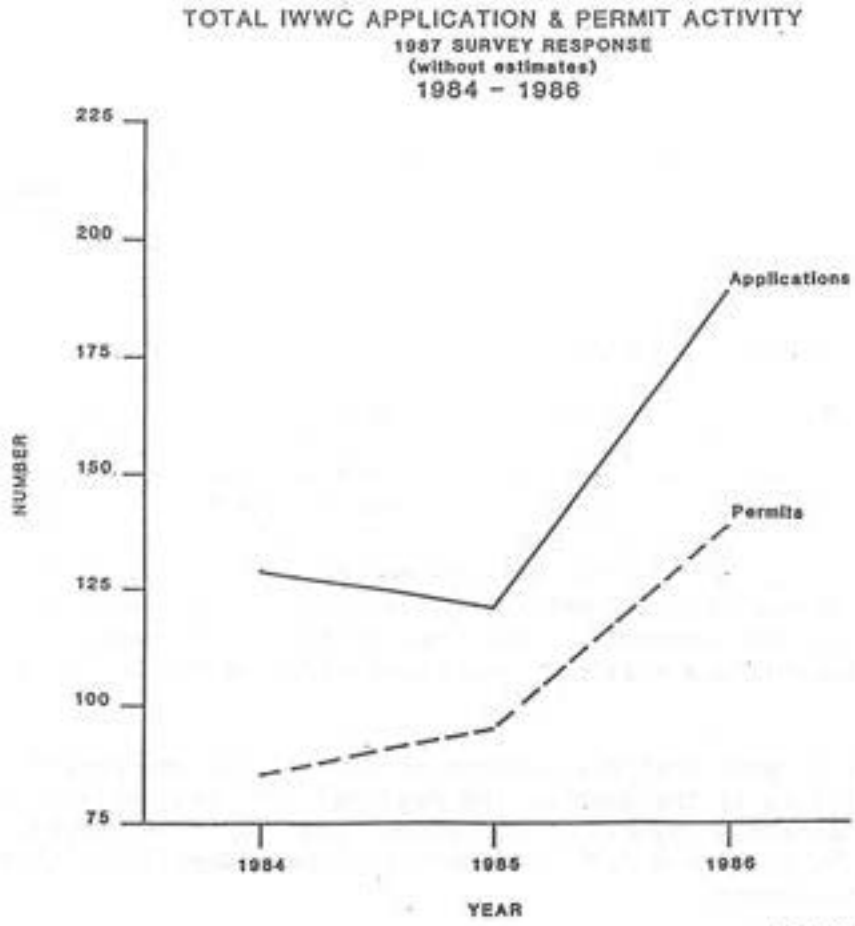

Figure 26

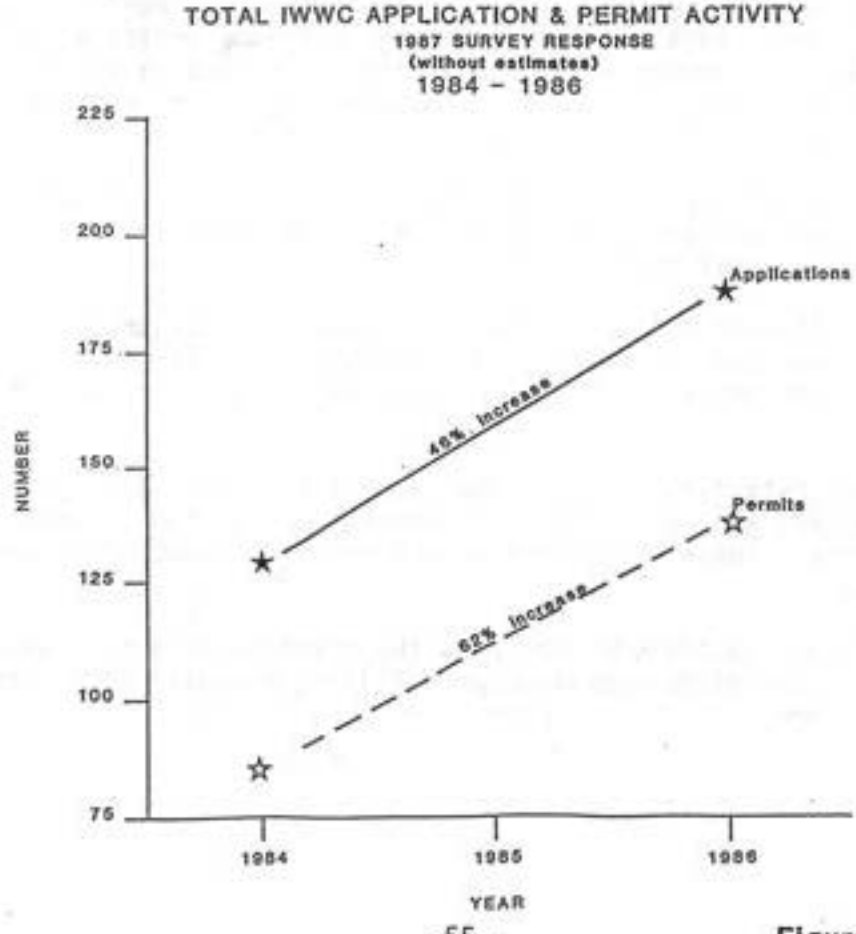

Figure 27

What impact on the area of regulated soils has this increased rate of permit activity had? Due to the very nature of situations in local municipalities as reviewed in this inventory, such as staffing and workload, compilation of this information is difficult.

LAND AREA INVOLVED IN REGULATED PERMITS

Four municipalities were used as a data source to compile this information. The four municipalities were East Lyme, Groton, Ledyard and Waterford. These municipalities had the necessary data available, either through application files or staff experience on applications. In two of the four municipalities, the data were derived through staff experience. In the remaining two municipalities, the information was derived through review and tabulation of application files. Since the information obtained through application file review closely matched the information obtained through staff experience, it is felt that the conclusions are realistic and representative for Southeastern Connecticut.

Figures 28 and 29 show that the pattern of application and permit activity for these municipalities is the same as the regional pattern. Between 1984 and 1985, applications decreased by 8%, while between 1985 and 1986, application activity increased by 53%. The 1986 application numbers were 40% higher than the 1984 application numbers.

The number of issued permits for these municipalities again matches the overall activity pattern of the region with a 52% increase between 1984 and 1986. One difference in permit activity between these four municipalities and the region occurs between 1984 and 1985. During this time period while applications decreased 8%, the number of permits issued decreased by 9%. The regional numbers show a slight increase in issued permits with a decrease in application numbers between 1984 and 1985.

In compiling application and permit data for this section, it was estimated that there would be two categories of applications and permits. One category would involve more land area than the other category.

Tabulation of the data indicates that there are two categories of applications and permits. One type can be termed "standard" and the other "major." Both categories contain activities that are typical to each in type and extent of proposal.

Examples of the "standard" activity are a wetland crossing to gain access to a non-regulated land area on a parcel of property or a road drainage outflow into a regulated area. These activities do not involve as much land area as "major" activities.

Examples of "major" activities would be the creation of a stormwater control structure or an exacation operation or a filling proposal to construct a building or parking area.

TOTAL IWWC APPLICATION & PERMIT ACTIVITY

EAST LYME, GROTON, LEDYARD, WATERFORD

1984 - 1986

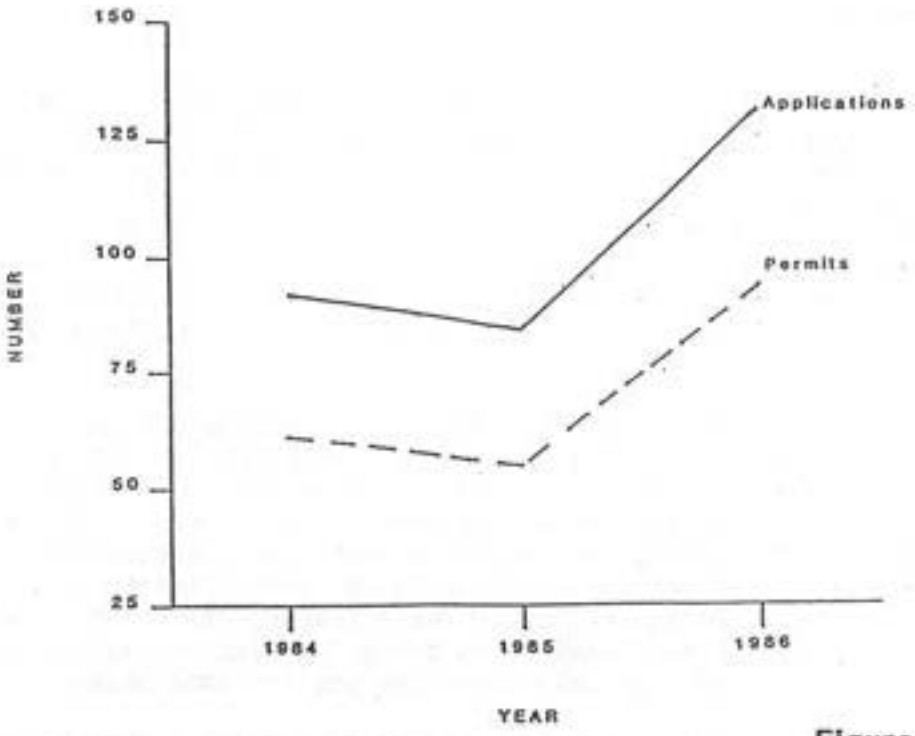

Figure 28

TOTAL IWWC APPLICATION & PERMIT ACTIVITY

EAST LYME, GROTON, LEDYARD, WATERFORD

1984 - 1986

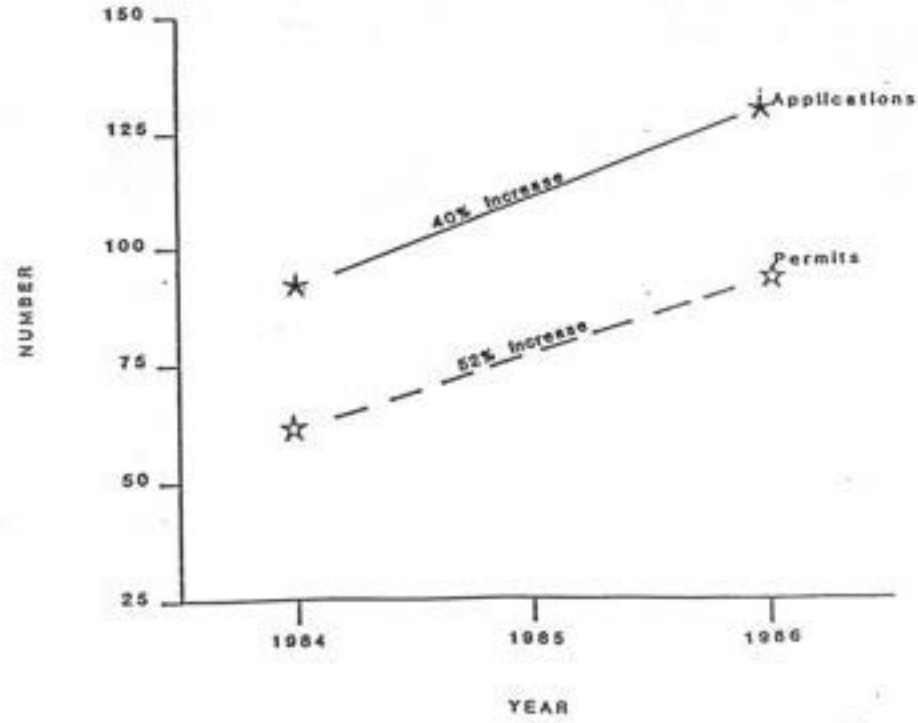

Figure 29

ACTIVITY AND LAND AREA

During the three-year period from 1984 through 1986, the four municipalities received 305 applications for permits. These applications resulted in 209 permits issued. The majority of both applications received and permits issued fell into the "standard" activity category. The "major" activity category accounted for less than 1% of the permit activity.

The amount of wetland area involved with each "standard" permit issued is estimated to be 5,300 square feet on the average. Again, the "standard" permit accounts for 99% of the permit activity.

With regard to the "major" activity category, there are two aspects of wetland area. One aspect is the typical wetland area involved in "major' activities. This is the wetland area involved in the majority of permits in this category of activity. This typical wetland area is one acre, or 43,560 square feet. The other aspect of this category of permit is the average wetland area involved per permit. The Average wetland area per permit for this tabulation was three acres, or 130,680 square feet. The difference in these figures is a result of large parcels of regulated soils being involved in one permit while the remaining (most) permits typically involved smaller land areas.

Table 4 lists the total land area involved in permits during the three-year period of 1984 through 1986. This information is depicted in relation to total regulated soil area per municipality and as a percent of that regulated soil area.

As a group, the four municipalities contain a total land area of 87,744 acres. Of this total land area, 12,076 acres are regulated soils. This regulated soil area accounts for some 14% of the total land area. The total wetland area involved in permits during this three-year time period was 34 acres. This area represents less than 0.3% of the total regulated soil area of 1983 in this group of communities.

The wetland area involved in permits per individual municipality maintains this same percentage with three of the four towns. The exception is the Town of Ledyard which has had just over 0.3% of its regulated soil area involved in permits.

Table 4

LAND AREA INVOLVED IN REGULATED PERMITS ISSUED
1984 - 1986

TOWN	REGULATED SOIL AREA IN PERMIT	TOTAL AREA OF REGULATED SOILS (1983)	PERCENT OF TOTAL REGULATED SOILS IN PERMIT
East Lyme	7.3 AC	3,095 AC	.23
Ledyard	11.7 AC	3,477 AC	.33
Groton	6.9 AC*	2,639 AC	.26*
Waterford	8.1 AC*	2,865 AC	.28*
TOTAL:	34 AC*	12,076 AC	.28*

* Estimate.

SUMMARY/CONCLUSIONS

A sizeable area of each municipality is comprised of regulated soils. The acreage of regulated soils in the region is 15.5% of the total land area.

Many of the sensitive wetland areas in the region are zoned for uses other than intensive commercial or industrial uses.

The number of wetland applications in the region increased by 41% from 1984 through 1986.

The number of wetland permits issued in the region increased by 56% from 1984 through 1986.

The increase in application and permit activity has required an increased time commitment and knowledge of environmental and legal issues by commissioners.

Over 99% of applications and permits are for "standard" activities (driveways, drainage outflow) and utilize approximately 5,300 square feet of wetland.

Less than 1% of all applications and permits are for "major" activities (drainage structures, excavation operations, filling) which utilize approximately one acre or 43,560 square feet of wetland.

Staff assistance is widely utilized by commissions.

RECOMMENDATIONS

The provision of educational programs by the State DEP is required by the amended 1987 legislation. Commission members should attend all programs provided by the State and others as they are provided.

If the additional time commitment required for all aspects of the land use development process is limited by volunteers, the expansion of staff assistance should be explored.

Zoning regulations can be utilized, in addition to Inland Wetland Regulations, to protect sensitive wetland areas. There are two general regulatory approaches. One approach is an Overlay District. This method prohibits intensive land uses in areas of large stratified drift. It is a groundwater protection regulation.

The other regulatory approach is permitting intensive land uses only by Special Exception in sensitive wetland areas. This permits additional review authority.

Both of these regulatory approaches are valid for appropriate areas and their use should be explored to protect sensitive wetland areas.

All land use decisions require communication and coordination between various commissions responsible for different aspects of development. This communication and coordination should be promoted and practiced continually to ensure environmentally sound development.

APPENDIX

MAJOR ASPECTS OF 1987 WETLAND LEGISLATION

Wetlands - P.A. 87-533 (Effective July 1, 1987) - The legislation accomplishes the following:

a. Limits the intrusions on wetlands and watercourses that were previously justified as necessary for agricultural activities;

b. Makes all proposed residential homes subject to wetland regulations, regardless of when the lot was approved;

c. Requires DEP to develop training programs for members of local agencies;

d. Requires DEP to establish forms and procedures for reporting local agency actions;

e. Requires that certain applications be denied if a prudent alternative exists;

f. Requires that all municipalities establish wetland agencies by July 1, 1988;

g. Cities or boroughs may delegate regulating authority to the towns in which they are located;

h. Proposed new regulations or amendments must be referred to DEP at least 35 days prior to hearings on them;

i. The day of receipt of an application cannot be sooner than three business days after its submission;

j. A hearing on an application must be completed within 45 days and action within 35 days after the hearing;

k. Application fees may cover reasonable costs of reviewing and acting on applications, such as mailing and publication of notices and monitoring compliance with permits;

l. Applications for site plan approval or special permits for activities involving wetlands or for subdivisions of land containing wetlands must be filed with the wetlands agency on or before the day they are filed with the planning or zoning commission and the commission shall not render decisions on such applications until it has received and considered the report from the wetlands agency. If necessary, the commission's action on such an application may be delayed up to 35 days after the wetland agency's action;

m. Applicants must notify wetland agencies of towns within 500 feet of a wetland or watercourse upon which a regulated activity is proposed;

n. The DEP may, for cause, revoke the authority of a municipality to regulate its wetlands and regulate them itself, at the municipality's expense.

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